

WEEKLY TIMES

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FINANCIAL TIMES

No. 26,216 Monday November 19 1973 ** 6p

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NEWS SUMMARY

Health care pay deals opposed by EEF

Threshold pay deals for health care workers have been opposed by the Engineering Employers' Federation (EEF).

Ter bombs truce

A wave of bomb attacks hit Northern Ireland last night only after the ceasefire.

Power men's leaders vote to continue action

Leaders of the Electrical Power Engineers' Association have voted to continue their strike.

Irish plea Irish coins

Irish coins are being used in Northern Ireland.

to control companies

The National Association of Health Students at their conference in London.

to control companies

Scottish investment manager, led by Mr. George.

rescued

A crew of a Swedish cargo ship was rescued yesterday.

remembered

Carried out security at 10,000 Jewish men remembered their ad.

on's battle

Nixon faces a long up-lift to re-establish public trust, according to the Gallup poll.

Christmas spirit

The Palatka-based 300 gallons of whisky to be sent to Chicago in time for Christmas.

New 5% Arab oil cut—but not for 'European friends'

BY RICHARD JOHNS, Vienna, Nov. 18

Arab oil producing states have decided to cut production by another 5 per cent from the beginning of next month, but to exempt the European Community—with the exception of Holland—from the limitation.

Those members of the Arab oil cartel, OPEC, who are not members of the European Community have agreed to cut production by 5 per cent. The cut will be applied to the 15m-barrels-a-day level of production which was agreed in the 1972-73 season.

Special treatment was given to Britain and her other seven partners in the Community in appreciation of the political stand taken by the Common Market countries in their support of the Arab oil states.

They are here for tomorrow's conference of the Organisation of Petroleum Exporting Countries (OPEC) in Vienna.

Other oil news, Pages 6 and 9

U.K. still facing pressure over problem of supplies

BY ADRIAN HAMILTON

THE ARAB decision to exempt EEC countries except Holland, from the latest round of cuts, while generally welcomed, has not removed the pressure on the U.K. to meet its oil needs.

U.K. shipments themselves are expected to be down by some 15 per cent over the remainder of the year against expectations. More disturbingly, the full burden of the shortfall is now being carried by stock reduction. National stocks are now estimated to be between 30 to 35 days, compared with 40-45 days announced by the DTI three weeks ago.

Heath happy at Pompidou talks

BY JOHN BOURNE, LOBBY EDITOR

MR. EDWARD HEATH, the Prime Minister, is said to have been well pleased with the results of his two-day talks with Mr. Pompidou, the French President, which ended at Chequers on Saturday.

According to British sources, the two leaders found themselves in close agreement about the form they would like next month's Copenhagen summit meeting of the heads of the Nine to take.

London railmen strike to-day

BY JOHN WYLES, LABOUR REPORTER

THE FIRST of a possible series of stoppages over railmen's pay will hit London to-day when serious disruption is expected to services into and out of three London stations because of an unofficial 24-hour strike called by London train drivers.

Unofficial

The drivers will be taking action in the face of an instruction to work normally from their union, the Associated Society of Locomotive Engineers and Firemen.

Bullets

According to official figures three of the nine people who died were students aged 16 to 22.

Athens tense after fresh clashes

BY OUR OWN CORRESPONDENT

THE SITUATION remained tense in Athens today, following re-imposition of martial law throughout Greece in the wake of student unrest which resulted in the death of nine people over the weekend.

'Enemies'

Under the Constitution, the President is in absolute control of national security, defence and foreign affairs.

A few words on behalf of Miss Joanna Blakemore...

Joanna Blakemore is a highly successful child model. We think she proves the point rather prettily that the Temperance Permanent have a saving scheme for everybody.

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The Temperance Permanent Building Society

More talks on cutting flights

MICHAEL DONNE, AEROSPACE CORRESPONDENT

THE TALKS will be held the airlines' efforts to save fuel. London to-morrow between many flights on the routes already, each airline will agree to cut out one daily return flight to New York and perhaps two flights weekly to Washington. This will still leave what they believe to be an adequate number of available services in view of the past problem of many flights leaving with large numbers of unsold seats.

Winter traffic is customarily much lower in volume than in the summer months and what the airlines have agreed to do is to cut 30 per cent. from seven or eight flights weekly on the New York and Philadelphia routes.

It is also due to be held in Washington on the week of flight cuts on the air routes between the Atlantic and the Far East and the Atlantic is considered the airlines-British, Pan American and World-Wide have agreed to cut 30 per cent. from seven or eight flights weekly on the New York and Philadelphia routes.

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Aluminium product deliveries recover

KEN GOFTON

THE holiday months of August and U.K. deliveries of aluminium recovered strongly in September, reaching 18,175 tonnes against 12,502 tonnes in August, and taking the nine-month total to 137,107 tonnes. But output of primary metal eased back slightly, from 23,019 tonnes to 21,262 tonnes.

The International Primary Aluminium Institute, in London, revealed at the week-end that output of primary aluminium in non-Communist countries in September, at 817,000 tonnes, was one of the lowest totals for any month this year. May was the best month, with an output of 850,000 tonnes.

The fact that September was a 30-day month partly explains the drop, but other factors were likely, dispatches of rolled aluminium from the August of 18,212 tonnes to 19,340 tonnes in September. Twelve months earlier, the figure was 16,324 tonnes. In the January-March period, deliveries rose to 163,284 tonnes, an increase of 50 per cent. on 1972.

U.K. DISPATCHES OF ALUMINIUM ROLLED PRODUCTS (tonnes)

	1973	1972
January	17,471	14,598
February	16,877	11,782
March	17,952	14,349
April	17,104	12,440
May	18,914	15,091
June	19,028	15,513
July	15,866	12,492
August	18,212	14,085
September	19,340	15,437
October	17,186	17,186
November	17,325	15,534
December	15,344	12,987
9 months	163,284	125,987

IBA-Geigy claims big advance in weed control

RICHARD MOONEY

GEIGY (U.K.) is claiming to be negligible a week after application. Claron has been commercially cleared under the terms of the Pesticides Safety Precautions Scheme for use in reservoirs, water-courses, waterways, ponds and lakes.

IBA-Geigy will begin test-marketing the product next year.

U.K. trade delegation for Iran

A DELEGATION of British businessmen will go to Iran later this month for a conference aimed at promoting U.K. business in Iran and setting up joint ventures.

More than 50 companies will be represented at the conference, which is being organised by the Confederation of British Industry and the Iranian Ministry of Economy.

Lord Thorneycroft, chairman of the British Overseas Trade Board, will lead the U.K. team. The final session will be addressed by Mr. Peter Walker, Secretary for Trade and Industry.

The conference follows a CBI investment mission to Iran last November, led by Sir John Stevens, then chairman of Morgan Grenfell. The CBI has since been trying to identify ways in which British companies might participate in Iran's five-year development plan, begun in March of this year.

Gerald Nabarro

MENT lost one of its most colourful characters with the death at the week-end of Sir Gerald Nabarro, 68, a Conservative MP for South Devon.

Born in London, Sir Gerald went to a council school until he was 14. In 1945 he was adopted as Conservative candidate for West Bromwich, but was defeated. At the next election he won Kidderminster and remained a member for this constituency until 1964 when he resigned because of ill-health, having been knighted the previous year for services to politics. In 1966 he returned to politics to win South Worcester, one of the safest Tory seats in the country.

Sir Gerald, who had had three strokes in the last 18 months, had already announced that he would not be standing at the next election. The fourth stroke, which came on Wednesday, never regained consciousness.

At the last election Sir Gerald had a majority of almost 18,000 over his Labour and Liberal opponents.

Rise of £2m. in Arts Council grants

THE ARTS Council of Great Britain made 1,649 grants and guarantees ranging from £5 to £175m. and spent £13.9m. in the year to March 1973.

This spending was £2m. more than in the previous year, says the council's annual report.

The Scottish and Welsh Arts Councils received £1.4m. and £536,351 respectively.

Most of the cash went to the 887 Boards and committees of promoting organisations all over Great Britain, compared with 725 such organisations the previous year.

Some of the money went directly to individuals and small groups or was spent on awards and training schemes.

In the chairman's report, Mr. Patrick Gibson says the council wants to see the practice of the arts further developed in parts of the country which, whether for lack of initiative or want of resources, had so far been largely deprived. This includes many of the outer London boroughs.

It wants to help the development of the regional arts associations as a principal means to that end.

Repertory theatres in the regions and open ballet and theatre tours to the provinces were high priorities. The council wanted to improve theatres in the largest cities to take bigger productions.

The council was concerned that those who wanted to practise the arts without necessarily earning their living from them should have the best facilities. This was an area the council was beginning to explore.

INTERNATIONAL INDUSTRY REPORT:

New plants planned as shortages grow

BY OUR INDUSTRIAL AND FOREIGN STAFF

THE WORLD supply of ethylene, an essential feedstock for many plastic and chemical materials, is likely to become even more tight as a result of the oil situation, rising prices and restrictions on plant capacity.

This is the depressing picture reported by major chemical companies throughout the world, whether they rely on naphtha as the basic raw material for ethylene, as in Europe and Japan, or liquid natural gas as in the United States.

Although accurate forecasts are difficult to come by, most companies agree that the situation is likely to get worse before it improves. As a result, manufacturers and processors are relying on ethylene for polyvinyl chloride (PVC), polyethylene, ethyl alcohol and other materials will find their feedstock situation deteriorating. Some of these customers—such as a number of companies in the U.K.—are already experiencing a rationing of supplies.

In the U.S., industry sources suggest that demand is now running between 12 and 15 per cent. ahead of last year, a growth which would be even greater if there were no shortages.

Most U.S. production relies on natural gas liquids like ethane, propane and butane to produce ethylene. While the prices of these gas liquids have risen

sharply recently, partly because of a shortage of supplies—without raw materials difficulties future supplies of ethylene could be hit by plant constraints. One forecast suggests that production could not match demand until 1978.

At present most of the U.S. output which ran at about 87 per cent. of the design "name" capacity last year is now tended to retard the immediate running close to capacity.

Common Market countries is likely to be very close to production for the next four years. By 1977, consumption at 12.87m. tonnes is expected to exceed actual production (12.74m. tonnes) significantly.

At present, the rated capacity for ethylene in Western Europe is around 9m. tonnes a year. This is assuming all goes well and experience has shown that this is often far from the case. Shell is currently bringing on stream a complex at Muirkirk with an annual capacity of some 450,000 tonnes, while next year other ethylene plants with a total capacity nearer 800,000 tonnes are to be commissioned in Europe by Ube, Cof Chimie and URSB. In 1975, two plants with a total capacity between them of 500,000 tonnes a year are scheduled to come on stream, operated by Entasa and Rumianca.

According to a European Chemical News survey, much is due to happen in Italy as well. Montedison is going ahead at Priolo with a 400,000 tonnes expansion project and Brindisi is being revamped to give another 40,000 tonnes. There is also a possibility that Montedison will increase Porto Marghera to 500,000 tonnes a year—as was originally planned—and it could join Liquechímica, SIR and ANIC in a venture to build a 500,000 tonnes a year plant in Sicily.

While new plants are due to come on stream in Europe, Japan's naphtha imports rose sharply during the early part of 1973, from 538,787 tons in January to 662,184 tons the next month but have since fallen sharply, going down to 315,327 tons in July and 388,142 tons in August, a drop attributed to a world shortage.

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OVERSEAS NEWS

EEC Ministers to review plans for political unity

BY LORELIES OLSAGER

BRUSSELS, Nov. 18.

THE COMMON Market countries' new-found will to forge ahead in building European unity will be subject to a series of tests this week. But no sudden setbacks are expected, if only because the various ministerial meetings due to take place all look like skirting round contentious issues.

The most important reunion is a meeting of the Foreign Ministers of the Nine in Copenhagen on Tuesday to discuss political co-operation. Possible follow-ups to the Community declaration on the Middle East of a fortnight ago in an effort to win Arab goodwill on oil supplies are expected to be high on the agenda. The Ministers will also prepare a paper that has been under discussion since the summer.

The Ministers will review progress made in preparing the joint American-EEC declaration on Atlantic relations in the political and economy sphere. But major clash

as President Nixon is no longer expected to come to Europe this year, they may not feel in any particular hurry to reach a compromise text with the Americans.

In Brussels on Monday and Tuesday, Farm Ministers of the Nine will have a first exchange of views on the European Commission's proposals for reforming the Common Agricultural Policy. No detailed discussions are expected, although Mr. Joseph Godebski, Minister of Agriculture, may voice Britain's concern that the proposals do not envisage any benefit for the consumer.

On Wednesday and Thursday, the Nine Transport Ministers are scheduled to hold their first Council meeting in almost a year. The deadline between Britain and France over the axle weight of the proposed European lorry has so far prevented any meaningful discussion of other transport questions—but though the dispute is still unjoint, officials hope that the Council will pass without a tactical and economy sphere. But major clash

Gaullist change of heart over Europe

By Robert Mauthner

PARIS, Nov. 18.

THE NEW enthusiasm for Europe in France—a direct consequence of the sorry spectacle of Europe's impotence at the height of the Middle East crisis—this week infected even that bastion of Gaullist orthodoxy, the national conference of the UDR Party.

No less a person than M. Jacques Chaban-Delmas, 33, Messmer's predecessor as Prime Minister, came out with a proposal for the creation of a "European executive" to decide "political" policy and an autonomous defence system for Europe. At one time, this first suggestion would have caused a riot in such a Gaullist hall.

The fact that the former Prime Minister is reported to have had a long talk with President Pompidou recently plainly adds weight to his proposal, although it was not spelt out in very specific terms. It may be presumed that neither the President nor his ex-Premier is, in fact, thinking of a genuinely supranational executive but more on the lines of an inter-Governmental body such as proposed in the early 1960s in the abortive Foreign Plan.

Never the less, there can be little doubt that the Middle East crisis has at last pushed the powers that be in France into a reappraisal of their received ideas about Europe, an evolution which was already reflected in the speech which M. Michel Jobert, the French Foreign Minister, made to the National Assembly last week.

Europe too figures high on the list of priorities of M. Francois Mitterrand, the Socialist Party leader, who this week-end made his Party's continued support for the Common Market a condition for remaining its leader.

M. Mitterrand had threatened to resign in the face of mounting pressure from influential left-wing Socialist factions which wanted the Party to reject the Common Market in its present "capitalist" form. However, his own views, according to which the existing Community should be supported and efforts to make it more socialist should be made from the inside, finally won the day.

Rhodesia reports more 'provocation' from Zambians

BY TONY HAWKINS

SALISBURY, Nov. 18.

TENSION is again building up between Rhodesia and Zambia following two formal protests by the Rhodesian Government in the last three days accusing Zambia of "deliberate provocation".

The Rhodesian Government revealed at the weekend that on Thursday—the day when a British national, Mr. Donald Coles, a 42-year-old employee of the Rhodesian Power Corporation, was arrested by Zambian border guards—Zambian troops crossed the Victoria Falls bridge into Rhodesia and assaulted an unarmed Rhodesian African customs guard.

Mr. Coles is being held in the university town of Lusaka—apparently after being assaulted by his Zambian captors. A Capco spokesman said on Saturday the question of his release "may now be primarily a matter for medical consideration".

A further incident announced by the Rhodesians occurred on Wednesday night when five armed Zambians crossed the Kariba dam wall and set up two machine guns about 30 yards inside Rhodesian territory. The three incidents within 24 hours seemed to represent a deliberate policy of provocation, the Rhodesian Government said.

It was also announced at the weekend that Mr. Jimmy Ward, the Rhodesian Chairman of the jointly-controlled Central African Power Corporation, which operates the Kariba and Victoria Falls power plants, had been refused permission to fly to Lusaka and make representations for the release of Mr. Coles.

While describing the Zambian incidents as "provocation", Rhodesia is seeking to keep a low profile and is not likely to retaliate. The Kariba power system is vital to both countries and neither can afford any incident that would jeopardise its operations.

Soviet programme for gradual troop cuts

VIENNA, Nov. 18.

THE SOVIET Union wants 11 nations to make symbolic first steps in a graded central European troop reduction programme, Communist sources said today.

The Soviet plan calls for a reduction of 40,000 men in 1975, first phase of a three-year cut-back which would encompass nuclear and air force units as well as ground forces.

Qualified Warsaw Pact sources said the Soviet proposal would be "further elaborated" at the 19-nation East-West conference on troop reductions in Vienna, which begins a fourth week of twice-weekly plenary sessions on Tuesday.

Russia's three-phase programme calls for a 20,000-man reduction both by NATO and the Warsaw Pact in 1975, a 5 per cent cutback by each side in 1976 and a 10 per cent reduction in 1977.

The sources said Russia, speaking for the main Warsaw Pact nations, wants the cuts to be proportional according to the size of national and stationed armed forces in central Europe.

This means that Russia, with 430,000 men in the area, and the U.S., with 190,000 men, would

make the biggest cuts during each stage.

British and Canadian troops stationed in West Germany would be reduced proportionately. U.S., Soviet, British and Canadian forces withdrawn from Central Europe would be returned to their own countries, together with their weapons and equipment.

Gierek seeking Belgian aid

By Our Own Correspondent

WARSAW, Nov. 18. MR. GIERK, the Polish Party Leader, will be seeking further credits and more economic co-operation when he flies to Belgium tomorrow for a four-day visit, his second to the West since coming to power three years ago.

The topic will be a familiar one for Mr. Gierek, who is banking on Western loans to finance his expensive plans for raising Polish living standards. A consortium of Belgian financial institutions last year extended a £30m. credit to the Poles, but according to diplomats here, Mr. Gierek would like to return to Warsaw with considerably more in his purse.

The loans would go towards covering imports of industrial goods, especially textile machinery, electronics and other sophisticated machine products which are of great interest to the Poles. Mr. Gierek is to follow this up not only in talks with Belgian political and business leaders, but also when he travels to Ghent and Liege to inspect factories there.

The visit also will provide an occasion for the signing of Poland's new ten-year trade and co-operation pact negotiated earlier this year and initiated in Warsaw in September.

It will be the third such long-term agreement the Poles have concluded with Common Market members—the others being Britain and France—in the past year.

Peron leaves wife in charge

By Robert Lindley

PRESIDENT Juan Peron will fly to Montevideo tomorrow to sign, together with Uruguayan President Juan Maria Bordaberry, a treaty resolving the century-old disputes between the two countries concerning the jurisdictional limits of each in the River Plate waters.

Significant as this is for both Argentina and Uruguay, the actual treaty signing seems to be drawing less attention here than is the fact that Gen. Peron's wife, Isabel, the Vice-President, will be acting President during the approximately four hours of his absence from the country. It will be the first time in Latin America that a woman will have been Chief of State.

Gen. Peron will be acting President again—for a period of about five days—early in December when President Peron flies to New York to address the United Nations General Assembly and, probably, meet with President Nixon.

PARIS GROCERS END STRIKE

By Robert Mauthner

PARIS, Nov. 18. FRENCH grocers, whose one-week strike against the Government's latest price controls culminated last Thursday in an unprecedented shutdown of all retail shops, cafes and restaurants in Paris and some large provincial cities, yesterday voted to end their strike after they had been promised an alleviation of the controls.

A communiqué issued after a meeting late on Friday night between fruit and vegetable trade representatives and M. Jacques Chirac, the Minister of Agriculture, stated that M. Gierek would receive them next week to discuss the application of the new taxes on profit margins.

THE OIL SITUATION

Gulf states brush aside 'suggestions' on pricing

BY RICHARD JOHNS

VIENNA, Nov. 18.

GULF producing States brushed aside "suggestions" on future oil pricing arrangements which were put forward by representatives of the Western companies at a meeting here yesterday.

Delegates from the six Gulf producing countries expressed dissatisfaction that the industry, which requested the discussions, have not come up with any detailed proposals about how a price mechanism relating the posted price (or tax reference) for oil with realised market value should work, and particularly, how the latter could be accurately assessed.

A full-scale conference of the Organisation of Petroleum Exporting Countries meets here tomorrow to decide whether—and on what basis—posted prices should be raised to take account of higher prices obtainable on the market because of the abnormal situation resulting from Arab production cuts.

Any increase would be over and above the 70 per cent height increase last month, and laterally by Saudi Arabia, Iran, Kuwait, Iraq, Abu Dhabi and Qatar. This led to even larger proportionate increases for Libya and Nigerian oil.

The key issue of the moment arises from the producing States' decision to link posted and

market prices. Rigid application of the formula adopted by Gulf producers would mean a sharp increase in taxes levied by the oil States. Under the formula laid down by the Six, posted prices must always be 40 per cent above "market prices."

Clearly, members were hoping for some detailed discussions on this question. By not talking in more specific terms, the companies may have lost an opportunity to influence Opec unilateral action. They expressed their willingness to talk again with the producing States, but no meeting has been scheduled.

It is expected that the companies will report to the Governments of consuming States in advance of Wednesday's vital discussions on the oil crisis among members of the Organisation for Economic Co-operation and Development.

Among the Arabs, there will be a temptation to sharpen the effectiveness of the "oil weapon" by raising posted prices again. However, there are voices of moderation in Opec on this score, most notably Iran and Iraq.

With the need for understanding with Governments of consumer States and Western public opinion in mind, others may wish to delay action. In Saturday's discussions, one

new idea came from Iran, which is understood to have suggested that the tax reference could be adjusted to the movement in the price of petroleum products (after transportation, refining and taxation in consumer countries).

The 15-man industry delegation, led by Dr. George Piercy, vice-president of Exxon, urged that posted prices should be related "to agreed progressive changes until some target level is reached" and that there should be a relatively long time-period in between revision (though existing provisions for inflation and currency fluctuations should be checked). But Opec members saw these suggestions by the industry as aimed at restoring a system of "pre-determined" prices.

Dr. Piercy and his colleagues also put in a strong plea for an Opec-wide agreement "to rationalise the posted price structure so that 'leap-frogging' by different producers over financial terms achieved by others may be avoided."

On the Opec decision to relate posted and market prices, the companies said: "The companies felt that it would be unsound to relate the world-wide supply of oil to erratic prices generated in a very narrow, chaotic market."

Feisal stands by embargo plans

BY HUSAN HIJAZI

BEIRUT, Nov. 18.

KING FEISAL is reported to have re-emphasised that the Saudi oil embargo will not be lifted before Arab demands are fulfilled. According to Press accounts here today, the Monarch reiterated his position to two Lebanese leaders who have visited Riyadh.

He was quoted as telling Mr. Takiyeddin Solh, the Lebanese Premier, yesterday that the oil embargo will continue until Israel withdraw from occupied Arab territory, and rights of the Palestinians be established.

At a meeting on Friday with former Lebanese Premier, Mr. Saeb Salam, said U.S. must force Israel to start the withdrawal from occupied territory within a few weeks. The well-informed daily Al Anwar in special dispatch from Riyadh, reported that the King made his demand at the recent meeting with Dr. Henry Kissinger.

Dr. Kissinger, reportedly, said he expected Israeli withdrawal from Arab territory to take place within one year. King Feisal, the paper said, replied that this was unacceptable.

Informed oil quarters known are with Israel, and now stand

for their close relationship with the Saudis have described as "nonsense" the U.S. statements about an early end to the oil embargo.

However, Western diplomatic sources here who are acquainted with the details of Dr. Kissinger's talks with the Monarch, said King Feisal promised to lift the embargo when the Israelis begin to withdraw from occupied Arab territory. This was regarded as a concession of sorts, and this may be the basis for the hopes expressed by President Nixon about an early end to the Arab oil boycott.

Dr. Kissinger, the sources said, homes that between now and early Spring the Israelis will withdraw not only from the west bank of the Suez Canal but also from parts of Sinai.

Informed oil sources here believe the attitude of Libya and Iraq constitutes the loophole in the Arab oil embargo they find ironic as the two countries are regarded as the main Arab radicals regarding a Middle East settlement.

Both have rejected the cease-fire with Israel, and now stand

strongly opposed to proposals for a peaceful solution. However, according to reliable reports from Tripoli in Libya this week some Libyan oil exported to the Caribbean is already finding its way to the U.S.

Iraq's oil exports are continuing at the same rates as before war broke out, according to the oil men.

Iraq's attitude, it is believed, should be attributed not so much to political considerations as to the Government's dire need for oil revenue.

The Government in Baghdad has reportedly offered to sell Japan all the oil that belonged to the nationalised U.S. interests in Mosul Petroleum Company.

According to Japanese business sources, Tokyo, however, desperate it may be for oil supplies, has not yet answered Baghdad. The Japanese authorities fear Iraq's proposal could bring them into direct conflict with the U.S. Government and the oil companies. Another reason is said to be the high sulphur content of the Basra crude.

More oil news—Page 9

Rough Day?

Have a little smoothness tonight.



Blended for smoothness—it never varies.

Peron leaves wife in charge

By Robert Lindley

PRESIDENT Juan Peron will fly to Montevideo tomorrow to sign, together with Uruguayan President Juan Maria Bordaberry, a treaty resolving the century-old disputes between the two countries concerning the jurisdictional limits of each in the River Plate waters.

Significant as this is for both Argentina and Uruguay, the actual treaty signing seems to be drawing less attention here than is the fact that Gen. Peron's wife, Isabel, the Vice-President, will be acting President during the approximately four hours of his absence from the country. It will be the first time in Latin America that a woman will have been Chief of State.

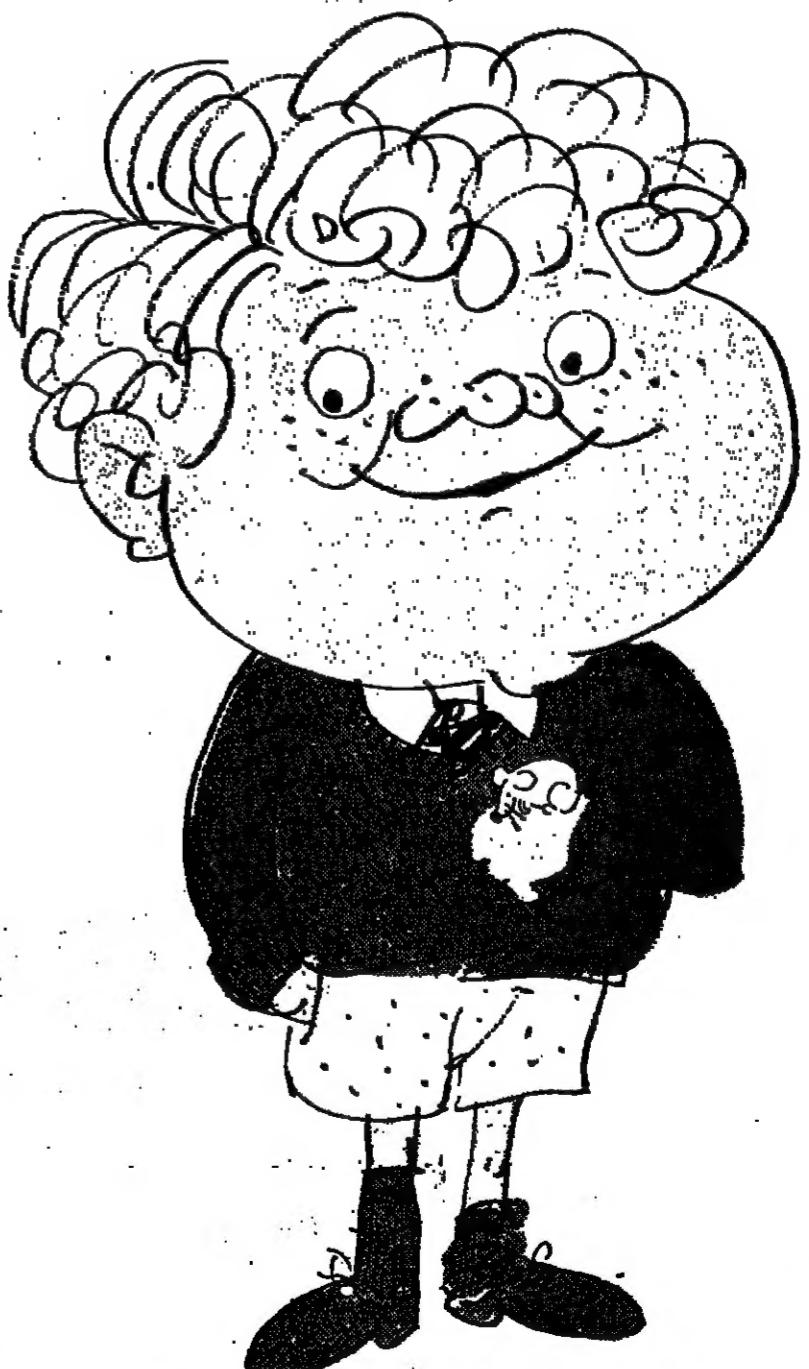
Gen. Peron will be acting President again—for a period of about five days—early in December when President Peron flies to New York to address the United Nations General Assembly and, probably, meet with President Nixon.

PARIS GROCERS END STRIKE

By Robert Mauthner

PARIS, Nov. 18. FRENCH grocers, whose one-week strike against the Government's latest price controls culminated last Thursday in an unprecedented shutdown of all retail shops, cafes and restaurants in Paris and some large provincial cities, yesterday voted to end their strike after they had been promised an alleviation of the controls.

A communiqué issued after a meeting late on Friday night between fruit and vegetable trade representatives and M. Jacques Chirac, the Minister of Agriculture, stated that M. Gierek would receive them next week to discuss the application of the new taxes on profit margins.



My mum went all red and giggled

"The other day, my dad told my mum he was going to take out another life insurance policy. I asked him why he wanted two when he only had one life. He said it was very important for my future, and anyway he never did things by halves. So I said in that case why aren't I twins? And my mum went all red and giggled."

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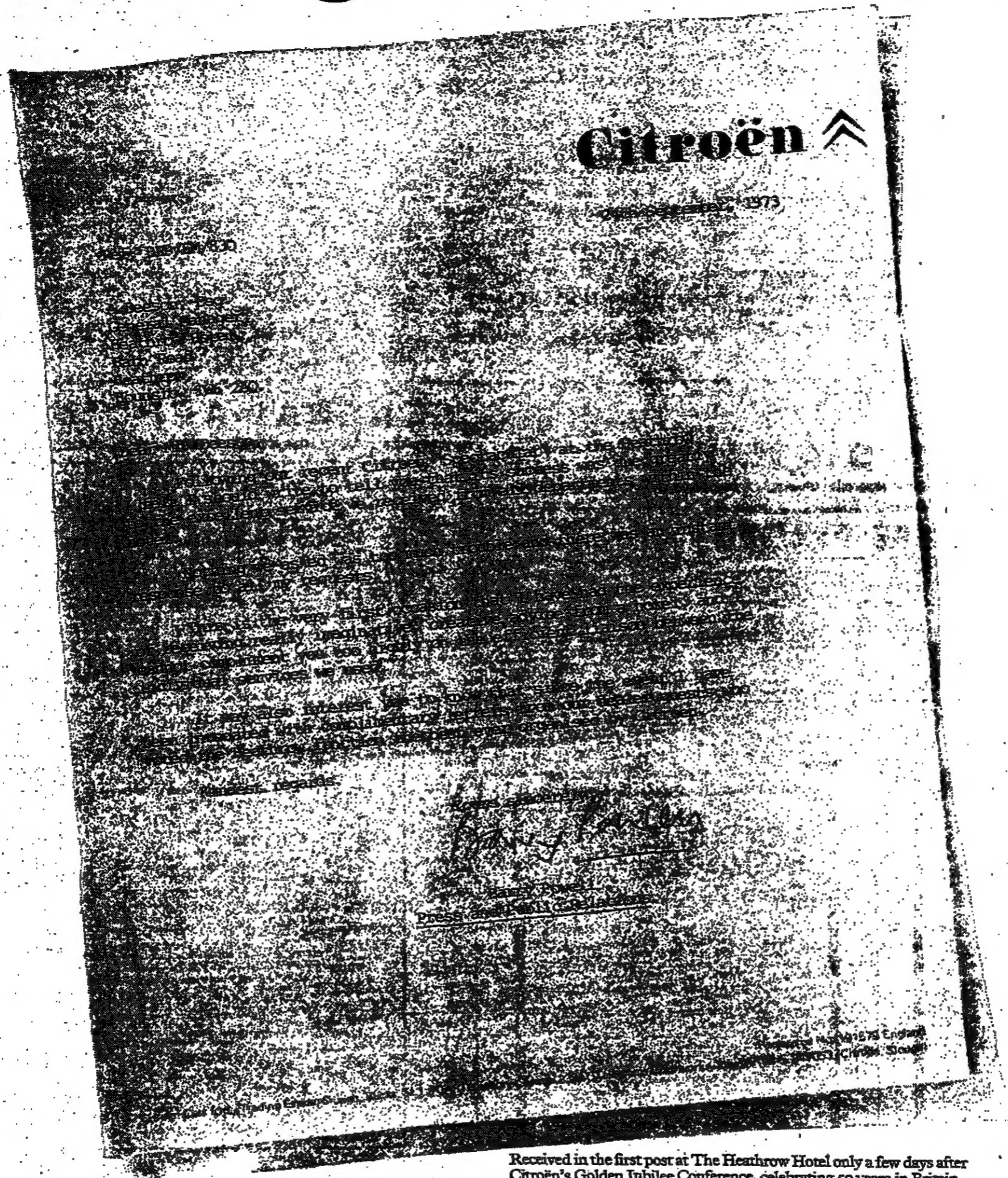


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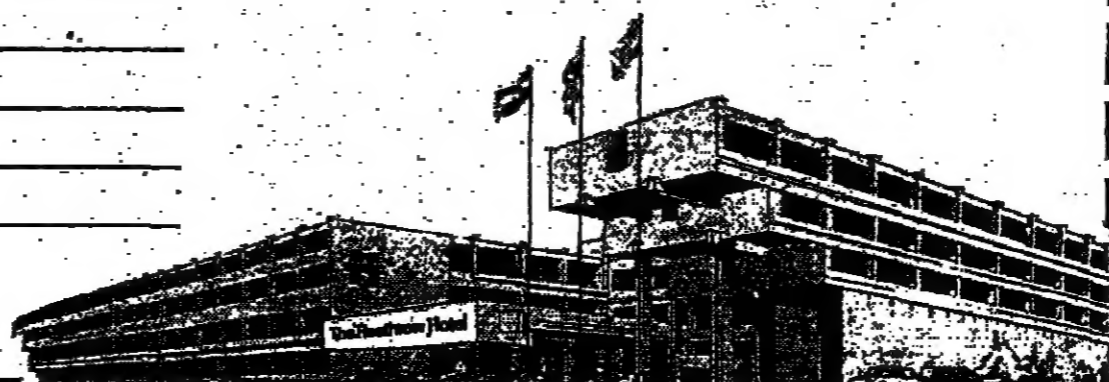
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THE JOBS COLUMN

Money mainspring · 'Mobile' mansions · Manufacturer

BY MICHAEL DIXON

A TOP-LEVEL thinker-and-doer in finance is wanted at British Oxygen's London headquarters. As chief adviser-finance, the newcomer will be part of the group strategy office set up in January to look ahead and world-wide at all policy aspects of BOC, whose products range from gases to frozen foods and whose employees number 20,000 in the United Kingdom and as many more overseas.

The director of this office was to have been Michael Shanks, but he walked into a top bureaucratic job in the EEC, and the directorship was taken by Paul Bosonnet. His team already includes chief advisers for planning, for public affairs, and for human resources. This last gentleman, called Jim Lynch, is dealing with applications for the new job (Hammersmith House, London, W8 9DX).

As well as advising the Board on group financial strategy, the chief will take responsibility for the running of the whole of British Oxygen's financial operations. To help, there will be a small central team of a treasurer, a chief accountant, specialists in tax affairs and so on.

Accountancy qualification or

higher degree in finance would be an advantage, but the essential is consummate experience of corporate finance on an international scale, gained possibly in a multi-national company or a merchant bank. Candidates must already be at or very near the top of a big corporate finance operation, and be demonstrably capable of fulfilling both the executive and the egg-head roles. Age broadly 35-50.

Salary is quoted only as "five figures." Other benefits are not quoted at all.

In the nine months to June 30, British Oxygen's pre-tax profit was £20.71m. on sales of £225.26m. (£16.06m. on £187.91m.).

Marketing factory-built houses is difficult in this country. Local planning authorities seem to dislike them.

So the marketing/sales manager being sought by CI Bluebird Homes in Poole will be basically more concerned with a new form of property development, than with the simple task of selling "mobile homes." (You can't really move them about much. The main reason for sitting the factory-built houses with wheels is that this seems

to make planning permission easier to obtain.)

The company is a subsidiary of Caravans International, and the new manager will take over the U.K. marketing effort, including a sales force of four plus numerous distributors, from Bluebird's managing director, Jonathan Bird.

Experience in housing, property development or the hotel field is wanted. And though the prime specification is success in sales or marketing management, the job might suit a local government executive who can show evidence of a flair for marketing.

Since Continental activity could follow later, a European language and experience of selling there would help. Age 30-45.

Salary £4,500-£5,500. Car. Contributory pension. Help with removal. Holidays three-four weeks. Applications to David Diehl of Diehl, Goughly (27 Albemarle St., London W.1.—Tel. 01-493 9334).

Caravans International's group pre-tax profit for the half year to February 28 was £10.4m. (£389,400). Results for full year to August 31 not available as I write.

Dennis Layne is acting both as manufacturing director of Armstrong Patents and as technical director of the Armstrong Equipment group. He'll be pleased when Patents—the group's U.K. operating company—gets its new manufacturing director (designate).

The company has a factory in York and three more on Humberside making products mostly for the automotive industry, with lesser operations in industrial fastenings and architectural ironmongery. Employees number about 3,300, a large proportion of them women.

Getting the products made will be the newcomer's main concern, though there'll be involvement in the group's continual effort to improve the efficiency of manufacture. Relations with the unions are said to be on the whole good. Responsibility will be to chairman and managing director Harry Hooper (Armstrong Equipment, Gibson Lane, Melton, North Ferriby, near Hull—where the recruit will be based).

Dr. Layne doesn't think paper qualifications vital for this job. Candidates should come from major flow-line or large-batch

production management and have had charge of pre-processing as well as shop floor operations. Age roughly 35-55.

Salary £7,000-£10,000. Share scheme possible. Car. Contributory pension. Help with removal. Holidays four weeks plus.

Group pre-tax profit was £2.3m. on £22.1m. turnover in year to July 1 (£1.71m. on £18.75m.).

To find buys on Continent

"It has gone better than I ever expected," says Tom Angear. The subject is the acquisition-broking side of Owen-Browne Associates.

The company was formed by Kim Owen-Browne in London about two years ago as a head-hunting concern. Mr. Angear joined him and set up the merger-identifying and promoting activity last January. "Kim did a remarkable build-up job with the executive search business," says Angear, "but I don't feel all that overshadowed."

He has already completed a £2.5m. property acquisition in

Copenhagen on behalf of a share possible. Car. Non-Contributory pension. Holidays flexible around four weeks. (Address: 36 Clarges Street, London, W1Y 7JP. Tel. 01-499 2559).

The main task is providing British companies with likely-looking buys on the Continent.

particularly in France and Scandinavia. Since the whole company at present has only five full-timers, the newcomers will be hard worked, keeping in touch with clients and contacts and "researching out" opportunities for profitable mergers.

They'll also be crossing the Channel about once a fortnight, and skill in French and/or German would be an advantage.

Basic needs are an accountancy qualification or a business degree with emphasis on finance, plus noteworthy experience in achieving acquisitions and mergers. Candidates could come from appropriate departments of merchant banks, big regional affairs, and finance.

The administrative staff provide services to all six. The new chief's domain includes personnel matters; publications work and the new Arts Council shop (which are intended to make money); premises and supplies;

and printing and other ancillary services.

The administration chief has responsibility for an internal budget currently about £750,000 and, while ranking one step below the departmental directors, is responsible to Mr. Stirling.

The Council's annual grant from Parliament—mainly used to aid professional arts bodies such as repertory theatres, and orchestras—is currently £17m. plus.

"The person we're looking for," says Angus Stirling, "is a skilled manager, especially where handling people is concerned, and experienced in dealing with a complex organisation of about our size, staffed by specialised and highly committed people."

Familiarity with legal procedure would help. So would business sense. Interest in, but not intimate knowledge of, the arts is needed. Age 40-60.

Salary scale £3,810-£5,083 for review. Non-contributory pension. Help with removal. Five weeks holiday. Application to establishments officer (10 Piccadilly, London, W1V 0AU) by December 14.

Arts Council Let Angus Stirling, deputy secretary-general of the Arts Council of Great Britain, tell you the major task for his new chief administration officer: "We need to develop a very clear and very thorough system of communications among staff and between departments about what is going on, where they stand, and the reasons for decisions being made at the top."

BANKING AND INSURANCE APPOINTMENTS

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A senior foreign exchange dealer is required by the London branch of a major New York bank which is expanding its overseas business. The branch has a medium sized dealing room, and is trading actively in the main currencies in exchange and deposits.

Applicants, aged 28-35, should have had several years active experience in the foreign exchange market, and be prepared to accept responsibility in the proposed expansion activities. Salary is subject to negotiation up to a high four-figure level; additionally, there are attractive fringe benefits including house loan scheme, Private Patients' Plan, non-contributory pension etc.

In the first instance and in the strictest confidence, please telephone Peter J. Taylor on 01-623 5051.

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INSURANCE ACCOUNTANT Circa £3,000

The rule that accountancy is dull does not always apply. One exception is offered here which would suit a young man, qualified to intermediate level, with several years book-keeping experience. But to do the job he'll need to be responsible and able to work on his own initiative, since he will be handling all administrative and accounting systems in the insurance broking subsidiary of an international construction company, whose annual turnover exceeds £120 million. The position is within a busy department which provides a complete insurance service to the Group. As leaders in their field, our clients offer an attractive salary, and a progressive, youthful working environment. Additional benefits include a subsidised staff restaurant and a contributory pension scheme. Those interested should apply to the address below.

Applications should be marked "Confidential" and should include a covering note indicating any organisation to which they should not be sent.

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Please address them to: T. D. Scott, Account Director, Quoting Ref: RC/C.31 LA&M Classified and Recruitment Ltd., William Blake House, Marshall St., London W1V 1LP

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To take on the responsibilities of this job will require an experienced man who has explored his current potential and is now seeking a definite challenge and an opportunity to introduce new ideas. Administrative ability is a vital part of the function, since he will be responsible for initiating and operating a revised group pension scheme. This will entail up-dating all present documentation, and records, and bearing this in mind, experience in computer applications would be a considerable advantage. In order to advise Management on the progress of the scheme, a sound knowledge of current legislation is required—and it is essential to be well informed on competitive schemes, and any alterations which may occur due to legal or government requirements.

Our clients are world leaders in the construction industry, and they view this as a pioneer appointment, which provides excellent scope for future development, including involvement in Life Assurance and Mortgage brokerage within the Insurance Department. This is another area where background knowledge would be a great asset. The company is both successful and progressive, and offers not only a good salary but excellent prospects for the future.

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APPOINTMENTS WANTED

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Australian Company Director—highly experienced—successful—with wide experience and sound reputation would consider acting as Australian Representative to highly respected U.K. or European Investment Banking or Property Investment Company or similar.

Will be visiting U.K. November, please write Box T.2853, Financial Times, 10, Cannon Street, EC4A 4BY.

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Department of Economics
Temporary Full-time Assistant
Applications are invited for a temporary full-time Assistant Lecturer in the first instance until September 30, 1974.
Salary within the range £2,258-£2,604 p.a.
Applications (in preference) together with the names and addresses of not more than three referees should be forwarded to the Department of Economics, University College, Cork, Ireland, from whom further details may be obtained.
Latest date for receipt of applications: Friday, 14 December, 1973.

UNIVERSITY OF BRADFORD MANAGEMENT CENTRE
Applications are invited from specialists in econometrics or behavioural aspects of economics for the post of RESEARCH ASSISTANT in the Professor of Managerial Economics. The successful applicant will work with Professor G. D. Newbould and publishable work can be expected. The appointment will be made as soon as possible, initially for one year, at a salary within the range £4,000-£5,000 p.a. Further details and application form (to be returned as soon as possible) to the Registrar, University of Bradford, Yorkshire, BD7 1DP. Informal enquiries welcome, direct to Professor Newbould.

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Ford Dealerships are complete businesses in their own right. But it is in the interests of Ford that they operate efficiently and profitably. So we provide a professional service to their managements—advising on the modern methods and control systems necessary to ensure effective business management.

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and see quick results from the procedures they advise to be adopted.

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LONDON

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Candidates aged 30 to 40, preferably graduates, should be AICS with a legal qualification and a career which shows experience predominantly in the administrative and legal activities rather than financial accountancy.

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requires a Mining Analyst aged between 25 & 30 to join their Research Department. Candidates should have had previous experience as an analyst and have a knowledge of South African and Australian Markets. As well as being required to cover the mining industry worldwide, the successful applicant will also be required to assist in the management of a major commodity fund.

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BANKING AND INSURANCE APPOINTMENTS APPEAR EVERY MONDAY

OIL AND THE MIDDLE EAST

The Algiers dilemma

BY DAVID HOUSEGO IN TEHRAN

THE rulers of the Gulf the lead in rounding up their fellow producers into a common front. But equally there has not been much thought as to the consequences of a long-term confrontation with the West or what the repercussions could be on their own fragile political institutions.

The importance of the Algiers conference is that it will give them some idea of whether the burden they are now expected to carry is directed towards defined and co-ordinated objectives for a peace settlement: and secondly how long they are likely to have to carry it.

Any assessment of future Kuwaiti policy runs up against a number of contradictions. The government has rejected the cease fire agreement but it does not publicly advocate a continuance of the war.

It is apparently prepared to sit out a long cut back in production as an extension of embargoes if necessary. Italy could face problems for retreating the Sixth Fleet. But though they recognise that Europe could suffer badly they apparently see no reason why this should interrupt their friendly ties with the community apart from indeed Kuwait and Saudi Arabia.

A breach with the West could lead to an extension of Russian influence in the Gulf — an unwelcome development to Kuwaitis and one to which they currently prefer to close their eyes.

Of all the paradoxes in policy that have emerged in the Gulf since the war began, the most striking have been in Iraq and Saudi Arabia. The Baathist regime, the most radical in the region and the protagonist of Arab unity, is the one Arab government to have publicly opposed an all round cutback in production.

On the other hand Saudi Arabia has turned out to be one of the leading exponents of the use of the oil weapon. Saudi production, which in September accounted for about half the Arab oil shipped from the Gulf, has dropped from 8.3m. barrels a day to about 5.6m. King Faisal, whose foreign policy was largely based on keeping the Russians out of the Arabian peninsula and the Gulf recently took what would have been an unthinkable step two months ago of sending a cable of congratulations to President Podgorny on Russia's national day.

So far differences of approach have been papered over by the immediacy of the war. At Kuwait the producer nations have felt their way from one decision to the next without much consideration for the long term repercussions. A further gathering of oil ministers was planned for about December 8.

This will now be overshadowed by the Algiers Conference which will take over the task of reviewing Arab oil policy. That means seeking ways by which the Arabs can increase their leverage over the West to give them more support while blocking aid to Israel. Within that context the Heads of State are likely to define how consumer nations can qualify for preferential status.

If the Gulf rulers leave Algiers with the impression that there is no co-ordination in the Arab negotiating position and that in the coming months they could be faced with an increasingly profitable tussle of nerves with the West, then their will to hang together is likely to be considerably weakened.

From Algiers onwards the front line Arab States need to prove that the oil weapon can bring results—or at least that the consequences for the Gulf States of falling foul of their northern Arab allies will be worse than falling out with the West.

19th November 1973

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Egypt presses U.S. to influence Israel

WILLIAM DUFFLANCE

CAIRO, Nov. 18.

IT IS looking for U.S. President Sadat's peace move. Israel to break the Foreign Minister Fahmy is understood to have told Washington a ceasefire agreement and that Egypt has so far fully demonstrated its desire for peace through the concessions, notably the exchange of war prisoners, it has made at American request. It was now the turn of the U.S. to demonstrate its sincerity by getting Israel to budge on the disengagement issue.

Privately informed Egyptian sources say the issue concerns not a definite October 22 line but a gesture from Israel that she too is genuinely looking for peace. In practice, this means the Egyptians expect the Israeli army to move away from the Cairo-Suez road.

Egypt's position is that, when the ceasefire agreement was announced that talks would be held on November 7, it was clearly understood that the Cairo-Suez road would be under the full control of the UNEF. At present UNEF control is subordinate to Israeli control.

Application of the ceasefire agreement was otherwise proceeding smoothly, according to the UN spokesman. Yesterday the October 22 lines were exchanged for 1,670 Egyptians and today 80 Israeli and about 1,700 Egyptian prisoners were due to go home.

Red Cross ambulances evacuated 512 wounded from Suez yesterday and 400 more were expected today.

There were four small violations of the ceasefire on Friday, the spokesman said.

Israel prepares for polls

L. DANIEL

TEL AVIV, Nov. 18.

OF ISRAEL'S top reserve-bility of taxis has increased considerably and the army has released, at least for the time being, some of the trucks which it mobilised with the outbreak of war six weeks ago.

The Cabinet at its weekly session today devoted itself mainly to the constitution and terms of reference of a legal-constitutional committee to be appointed by the President of the Supreme Court and to be headed by a judge to investigate the information available before the outbreak of the war on the enemy's preparedness and intentions, to initiate a series of decisions of the civil and military authorities concerned taken on the information available; Israeli forces general preparedness, and in particular that prior to the outbreak of war and the measures taken until the enemy's offences were halted.

Following a day in which rumours were rife as to the possible breakdown of the Israel-Egyptian talks, it was announced this afternoon that another "informal" meeting between top-level Egyptians and Israeli officers will take place tomorrow.

'walk-on' role for Khedaffi

ROBERT MAUTHNER

PARIS, Nov. 18.

LIBYAN President, Colonel Muammar Khedaffi, said in an interview published by the Paris Le Monde over the weekend that he would not State of Israel with which the Arab summit meeting was held on November 26, making peace.

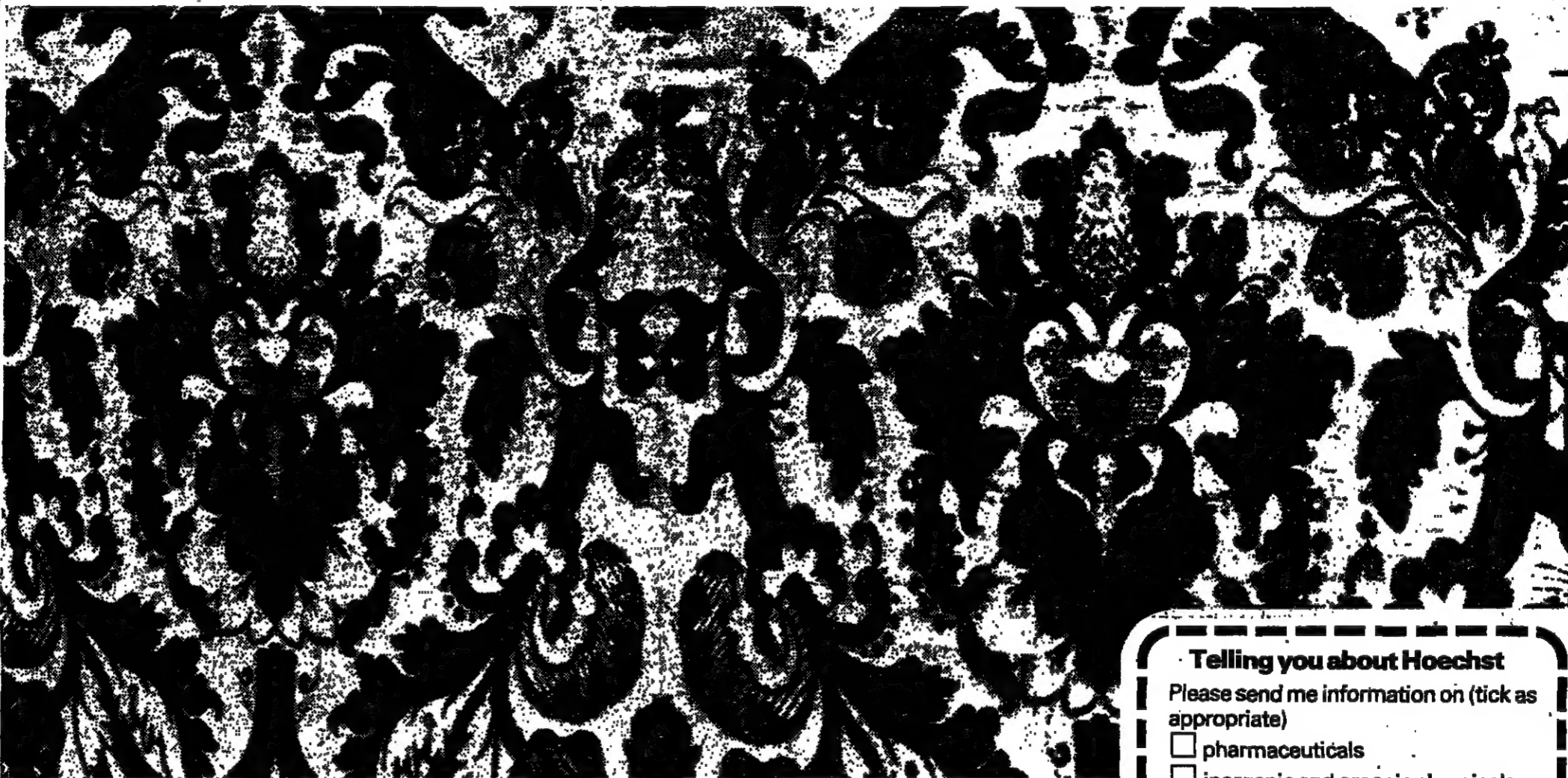
President Khedaffi also said by the other Arab leaders both on the venue and of having agreed "secretly" the conference—it had agreed originally that it differences at a meeting of their Foreign Ministers due to be held in Cairo two days before the Libyan President also said it on more fundamental and Syria were trying "walk-on parts."

Japanese 'co-operation' credits

TOKYO, Nov. 18.

HAS decided to extend a secure stable oil supply loan to Syria through decided to grant within this year government's Export-Import credit of 3,368m. yen through the Kogoro (Industry) the Export-Import Bank to the (Daily) said today. Syrian Government. The loan government also decided will be used for the construction of an agricultural irrigation system in the basin of the Euphrates river, it said.

Government in order to UPI



17th century chairback tapestries saved from decay with the aid of Mowilith

Saving works of art for the world

Many valuable works of art, buildings and archeological treasures throughout the world are threatened by decay. If they are not soon restored and protected, they will be lost for all time.

Hoechst research helps save tapestries

Hoechst research has made a decisive contribution to the preservation of art treasures. Like these valuable 17th century chairbacks whose disintegrating fabric was restored with the aid of Mowilith, a synthetic resin solution that restores and preserves. It's used by restorers all over the world—like Karen Finch who, in her Ealing studios, brings back to life many of the nation's most precious tapestries and fabrics. Mowilith provides a permanent backing to hold a decaying fabric together and allows re-weaving of damaged sections.

Mowilith saves other materials too

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Mowilith is the result of knowledge and experience in many fields. Hoechst research has resulted in many resins suitable as binders and sealers and for coating and preservation. Resins backed by more than a century in dyestuffs chemistry, comprehensive knowledge of the action of climatic factors on a variety of materials, especially the durability of paints and lacquers.

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Hoechst

Hoechst keeps thinking ahead



The Technical Page

EDITED BY ARTHUR BENNETT AND TED SCHOETERS

RESEARCH

Promising insect killer

A SYNTHETIC insecticide, related to pyrethrum, up to 30 times as active as dieldrin and up to 100 times as active as DDT but without the problems associated with the excessive persistence of compounds such as DDT, has been prepared by research workers at Rothamsted Experimental Station.

The new insecticide should retain the advantages of low toxicity to humans and cattle and absence of toxic residues which are features of earlier pyrethrum-type compounds, but does not suffer from their limitation of extreme instability in air and light. This increased stability should extend the scope for pest control, especially in agriculture and horticulture.

Temporarily coded as NRDC 143, the new chemical is the result of developments in the work which led to the discovery of two earlier and very successful synthetic pyrethroids — resmethrin and bioresmethrin — now being sold internationally through companies licensed by the National Research Development Corporation. Recent investigations at Rothamsted have led to the discovery of light-stable acids which give rise to insecticidal esters more active than any

DATA

PROCESSING

ICL pacts to advance design systems

COMPUTER Aided Design Centre, Cambridge, and International Computers, announced today a collaboration agreement through which ICL will market certain of the Centre's range of products to its customers for use on their own machines. The other contract is an order for a 1904A computer and associated communications equipment for the development of the Centre's products and services announced a few weeks ago.

CAD Centre, directed and controlled by the Department of Trade and Industry, develops and exploits computer aided design techniques, computer systems and communications for the benefit of industry. It makes services available on a commercial basis including a network of computers, sale and licensing of software, design and provision of dedicated systems for engineering application, and consultancy and project management.

The first product to be launched under the collaboration agreement is GINO-F (Graphical Input Output—FORTRAN). The main part of GINO-F has been arranged to be independent of the graphic device used and is supplied together with a range of communications modules which enable a large number of devices to be driven. A standard package drives the ICL 1934 graph plotter and Tektronix storage tube display terminals. GINO-F field testing on 1900 series computers is well under way and it is planned that it will be generally available to ICL customers before the end of 1973. It will be fully supported by ICL Datasil acting as agents for the CAD Centre. Further products, both for industry in general and for specific fields of engineering, will be announced shortly.



Testing the control circuit of a 5.5 kW Onan generator, one of a range now being marketed by Trident Equipment, Marsh Lane, Ware, Herts. to provide independent power sources. The generators are claimed to be suitable for incorporation in vehicles such as mobile medical service units, communication and control centres and workshops.

provides a weekly progress report showing time spent on project and non-project activities. Progress estimates to the nearest 10 per cent of each staff member's estimates are shown, with the number of hours ahead or behind schedule. All live projects held on the file are listed and the hours and cost in the period and to date are printed.

Film reader easy to handle

BOTH COMIC and cine formats in 18mm roll film can be dealt with by the model 600R reader just introduced by UCC Computer Instrumentation, of School Lane, Chislehurst, Kent.

It is fitted with a continuously adjustable prismatic system which enables the operator to rotate the image by any angle over the full 360 degrees. In terms of operator convenience, therefore, the reader offers an advantage over those having a more restricted rotation. Since both cine and comic images can be inverted instantly by turning a single control, it is immaterial which way up the roll film is loaded, and the need for reloading to obtain a correctly orientated image is obviated.

The feature is important when the reader is used with cine-format microfilm in cassettes. These can be loaded in such a way that the normal rotation of the film transport control produces advancing frame sequences regardless of the direction of the vertical sequence of the recording.

The 600R accepts unperforated roll film on spools, and in cassettes of various kinds. Magnification is 22:1, giving full compatibility with the company's

Cilcom 1600 COM unit and with most other COM units. The display screen is 14 x 11 inches and is illuminated by a 50-watt halogen lamp. The price is £145 with discounts for quantities.

Data link survey extended

EURODATA, a study of Europe's data-communication needs up to 1985, is to be updated during the next three years. A contract to incorporate extensive fresh information into the original study, completed last year, has been agreed by the 17 telecommunication organisations including the British Post Office—which commissioned the original report.

Eurodata was ordered from PA International Management Consultants to determine future data-communication requirements throughout Europe and to provide a base from which telecommunications authorities could effectively plan to meet Europe's growing needs.

The addition of new information over the next three years will provide a most comprehensive data base, containing details of data terminals, computer installations and applications, and the international flow of data.

The move is of particular significance to the British telecommunication service, which will be using Eurodata information as a key input for forward planning and forecasting studies. The task of updating Eurodata is also being undertaken by PA Consultants, in conjunction with Quantum Science Corporation, Italsiel, and Generale de Service Informatique—the group of four which carried out the original £700,000 survey.

INSTRUMENTS

Recorder has dual paper shift

AN INTERESTING feature of the model 2307 chart recorder just put on the market by B & K Laboratories is the fact that the paper movement in either direction can be controlled by an external DC voltage, so enabling the instrument to be used as an x-y recorder.

AC signals within the frequency range of 2Hz to 200 kHz can be accurately recorded and can be averaged, peak or RMS with crest factors up to 10. DC signals can also be recorded and a 1 kHz electronic chopper enables high writing speeds to be used without instability. The writing system uses interchangeable fibre pens, ink pens or sapphire stylus in conjunction with 50mm or 100mm roll charts or 200mm diameter polar charts.

Special white-waxed black paper rolls are available for use with the sapphire stylus, which are recommended when fast writing speeds are used.

Writing speeds are selectable from 2 to 2000 mm/s, but a lower limiting frequency control determines the lowest frequency to which the recorder will correctly respond, and if an unsuitable combination of writing speed and limiting frequency is selected, a warning light will indicate this fact.

Paper drive speeds can be selected from 0.003 mm/s to 100 mm/s in either direction, and the specially designed reversible synchronous motor has such short starting and stopping times that a mechanical clutch is unnecessary, and all controls of the paper drive functions are electronically operated.

TORRINGTON BEARINGS



THE TORRINGTON COMPANY LTD
Coventry-Darlington-London

facility, particularly as "communication links between north and south London" become increasingly strained.

The move is interesting in that a leading company in a science-based field of this kind seldom entrusts its servicing to an outside organisation.

Schlumberger stresses, however, that MSL will work to the standards set up by its own service manager and the quality assurance group at Farnborough, and in no way absolves itself from after-sales service responsibility.

The fact is, however, that electronic instrument sales are expanding and the existing base of instruments likely to need service attention grows steadily. Schlumberger itself has forecast £5m. sales of its own for this year and the industry total is probably running in the region of £20m. per annum.

Most scientific-electronic type instruments have a relatively long life and it seems probable that MSL's kind of operation is set for success as manufacturing companies realise that they are, indeed, in the business of design and manufacture rather than service.

Leasing company

MSL service expands

IT IS still not everyone who would consider leasing or hiring an electronic instrument to fulfil a particular project, rather than buying it. But the idea is catching on, and the LAB Group, which specialises in lease, hire and service, is clearly riding on the general boom in electronic instrument business.

One of the group's companies, Labhire, has opened a new European headquarters at West Drayton, Middlesex, and in 12 months has expanded its inventory of available instruments by three times to £750,000. The Labservice company has doubled its turnover in less than a year. In addition a Labhire Scotland centre has been opened, and more significant perhaps, operations have started in Paris and Düsseldorf, with a Munich centre planned for 1974.

MSL service deal with Solartron

IN WHAT seems to be a somewhat unusual deal, and possibly a trend setting one, Solartron-Schlumberger, one of the country's major electronic instrument makers has appointed MSL Calibration Centre, of Hitchin, as its approved customer service organisation for the northern home counties. Schlumberger says that its instrument business in the U.K. is now too big to be covered adequately by centralised servicing from the plant at Farnborough in Hampshire. It regards the north and east of London as key business areas that now justify a local service.

MINING

Safer roof bolting

THE HAZARD of roof bolting—one of the most dangerous jobs in mining—can be reduced, it is claimed, by the introduction of an electro-hydraulic remote control system for bolting underground. This allows an operator to work the machine accurately while safely out of the range of roof falls caused by the vibration of the bolting operations.

The control system uses com-

ponents from the range of electrohydraulic controls available from Moog of Cheltenham, Gloucestershire, and was developed by the Cheltenham company's parent corporation in the U.S.

Basically, it consists of a lightweight low-voltage power supply worn on the operator's belt, a hand-held control module, a 40-foot "umbilical" connecting operator and machine, and a stack of Moog Series 60 electrohydraulic proportional valves mounted on the bolter. The entire system operates from less than four volts of power.

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"PROFIT SUBSTANTIALLY AHEAD OF FORECAST"

SUMMARY OF RESULTS FOR THE YEAR ENDED 1st SEPTEMBER, 1973

	1973	1972
Turnover	£17,012,000	£13,289,000
Profit before tax	£811,478	£713,345
Profit after tax	£418,213	£365,345
Earnings per share	8.54p	8.09p
Final dividend	2.5p	—

Extracts from the Statement by Mr. A. M. Drysdale, Chairman.

ACCOUNTS

Profit before tax shows a 32 per cent increase over last year, more than matching the corresponding increase in turnover which, in the last five months, greatly exceeded expectations. This gave rise to a profit which is certainly "not less than £700,000" as forecast in the Offer for Sale document.

The rise in the figures for stocks is a reflection of the increase in turnover achieved, and we are turning our attention to a possible extension of the Dryburgh warehouse.

New money raised at the time of the flotation has been used to eliminate short-term borrowings and will be applied to further the company's development and expansion.

DIVIDEND

We propose that this should be 2.5p per share which, with the related Tax Credit, is equivalent to 4.0p per share. This exceeds the forecast dividend of 2.67p and is made possible by the increase in actual profit over the estimate at the time of the offer for sale.

The Board's policy is to see a normal year will be that the interim dividend payable in May,

should be approximately one-half of the final for that year.

DEVELOPMENT

Some of the company's future units are likely to be in the £5,000-20,000 sq. ft. category and will carry a much larger range of commodities, including a considerable selection of non-food items.

We follow no definite pattern as far as siting stores is concerned—it may be a town centre, high street or outskirts development. These categories are represented in our openings planned for the coming financial year at Forth, Dundee (Barhill), Limerick, Mingeia and Kilmarnock.

OUTLOOK

Trading experience in the current year would appear to justify optimism for the company's future. The economies of scale inherent in the increase in size of many of our new stores, and the optimum use of the new warehouse only serve to bolster this feeling. The relationship of profit to our turnover is, of course, under constant control at the present time, but taking account of this we expect to see a further significant increase in profit in 1973/74.

COPIES OF THE ANNUAL REPORT AND ACCOUNTS CAN BE OBTAINED FROM THE SECRETARY, WM. LOW & CO. LTD., G.P.O. BOX 73, BAIRD AVENUE, DRYBURGH INDUSTRIAL ESTATE, DUNDEE, DD1 9NF.

Johnson & Firth Brown Limited

Oliver Jessel, the Chairman, expresses confidence for the future

Extracts from the Report and Accounts for the year to 30 June 1973

Merger

Richard Johnson & Nephew Limited, which was founded in 1773, has celebrated its bicentenary by the great triple merger with Leeds Assets Limited and Thos. Firth & John Brown Limited, to form a prominent metallurgical and engineering group, now called Johnson & Firth Brown Limited, with net assets of some £60m., over 12,000 employees and a turnover at an annual rate in excess of £120m.

General Policy

Since the year-end the Company has agreed to sell to Jessel Securities a portfolio of shares for about £3m. This will leave Johnson & Firth Brown holding only those investments which relate to its trading activities and will raise funds which will materially reduce the cost of borrowing. This policy of disposing of all but our trade investments forms part of a broader scheme to develop JFB as a metallurgical and engineering group.

During the past three years £14.5m. has been spent by the Group companies on capital expenditure projects related to our metallurgical activities. These schemes are now generating profits and it is our policy to redeploy this cash flow into related activities.

Outlook

It is now six months since the merger between RJN and TF & JB was finalised and I am pleased to be able to report to you that a considerable rapport has been established between them, and the enlarged Group is working in a manner which has exceeded all expectations. In the current year, profits are likely to be somewhat restrained, however, by very high borrowing costs, the steel shortage and various controls. We shall have to accept that these restrictions are a national necessity at present but they do not affect the excellent long-term future of the Company.

On the whole, therefore, I feel that we can view the results of the year with reasonable satisfaction, and have every hope of further improvement in the current year.

The Year in Brief	1973	1972
Turnover	£71,513,000	£53,598,000
Profit before taxation	£3,216,000	£1,293,000
Profit attributable to ordinary shareholders	£1,628,000	£868,000
Earnings per ordinary share—diluted	5.8p	5.2p
Dividends per ordinary share (1973—gross equivalent)	4.6p	4.4p

POLLUTION

Constantly monitors road noise

UNUSUALLY sophisticated noise measuring equipment capable of not only continuously measuring levels at the rate of 7,200 readings per hour but also of providing various kinds of statistical analysis by means of a minicomputer has been put into action by the City of Birmingham Council.

The equipment, which has been supplied by Digitronix, has cost about £20,000 and one of its applications will be to provide data to indicate when householders are eligible for a noise insulation grant design and maintenance under the new Noise and Land Compensation Act. One of the requirements for example is that if between certain hours of the day the noise level exceeds a prescribed dB level for more than a given total time a grant becomes payable. The measurements have to be taken under prescribed conditions.

ELECTRONICS

Machinery control

CYCLING operations, in areas such as mechanical handling, plastics machinery, machine tool interfaces and canneries machinery, can all be controlled using the Automatic Logic Pac introduced by the Process Controls Division of Cincinnati Millarcor, Dells Lane, Biggleswade, Beds.

Many potential users of electronic controls, says the company, stick to relays. They feel electronics are too complicated and expensive training would be needed by their design and maintenance staff who are already well versed in relay type logic. Logic Pac is claimed to eliminate this problem by adapting the principles of relay logic to electronics. The logic diagram of the system is basically similar

to relay ladder diagrams. There is a direct one-to-one conversion from a relay diagram to the solid state integrated logic.

Standard labelling is used throughout so that maintenance personnel can read the diagrams without retraining. Servicing requires a minimum of instruction. From the designers' point of view it is simple to make modifications as requirements change. A complete control can be built up from as few as four circuit boards.

Harnessing know-how

A SEMINAR on "Know-how and Innovation" is being run by the International Institute for the Management of Technology at its Milan headquarters (59-83 Corso Magenta) from December 10-15. The seminar, for approximately 30 participants, will be of in-

terest to corporate planners, R & D and technical managers, financial managers, business development executives and bankers in venture capital organisations; also to civil servants with responsibilities in science and technology policy.

Main topics will include know-how and the process of innovation; determining the value of patented and unpatented technical information and the pricing of know-how; assessment and exploitation of industrial property rights, patents, legal and technical aspects of government agencies; financing of innovation and technology transfer.

The seminar will encourage direct participation through case studies, exercises, group work and discussions. Working languages will be, according to the needs of participants, English, French, German and Italian. The IIMT was set up two years ago under the auspices of OECD and is supported by six European governments, including the British Government.

Building and Civil Engineering

3m. contract for sustain Australia

IN AUSTRALIA has won a contract to construct the Sydney Capital Tower, which is one of the tallest buildings in the world. The development is in the business end of the city and will provide 100,000 square feet of floor space, accommodation will occupy 100,000 square feet and the remaining 100,000 square feet will be retail, banking and offices. A basement car park will provide parking for 375 cars and over this, at ground level, there will be a shopping area. This area will be covered by an 18,000-square-foot garden plaza.

Harbour work in Turkey

BERTLIN AND PARTNERS, consulting engineers, have been appointed by the Overseas Development Administration to assist the Turkish Government with planning an extension of harbour facilities at Izmir. The multi-million pound project embraces new quays for container and general cargo vessels and passenger ferries, having a combined length of 1,500 metres. Some work has already been done on the scheme and Bertlin's duties—under British technical assistance arrangements—in the first stage are to scrutinise preliminary designs and investigations undertaken by the

Turkish Government, to carry out design studies to select the most appropriate forms of construction for the new works and to prepare drawings and cost estimates.

Composting plants in Libya

WHITE, YOUNG AND PARTNERS, consulting engineers, are to undertake the first two phases of the implementation of two composting plants in Libya, one in Tripoli and the other in Benghazi. Compost is urgently needed to provide humus in the dry, sandy soil throughout the country and these projects are expected to make a major contribution to Libya's agricultural development.

The first phase—which will probably take three to four months—consists of a feasibility study on total refuse from each city, the selection of composting processes, study of additives, uses and markets and general appraisal of the project. The study requires a detailed analysis of the refuse of about half the total population, together with a study of future development and population trends. Tripoli, the capital, has a population of 400,000, while Benghazi, the second largest city, has 350,000 people. The second phase, expected to take seven months, entails preliminary process and engineering design, preparation of specifications, drawings and tender documents. Issue of international tenders for construction of the plants and assistance with the adjudication and award of contracts.

Developing Tortola

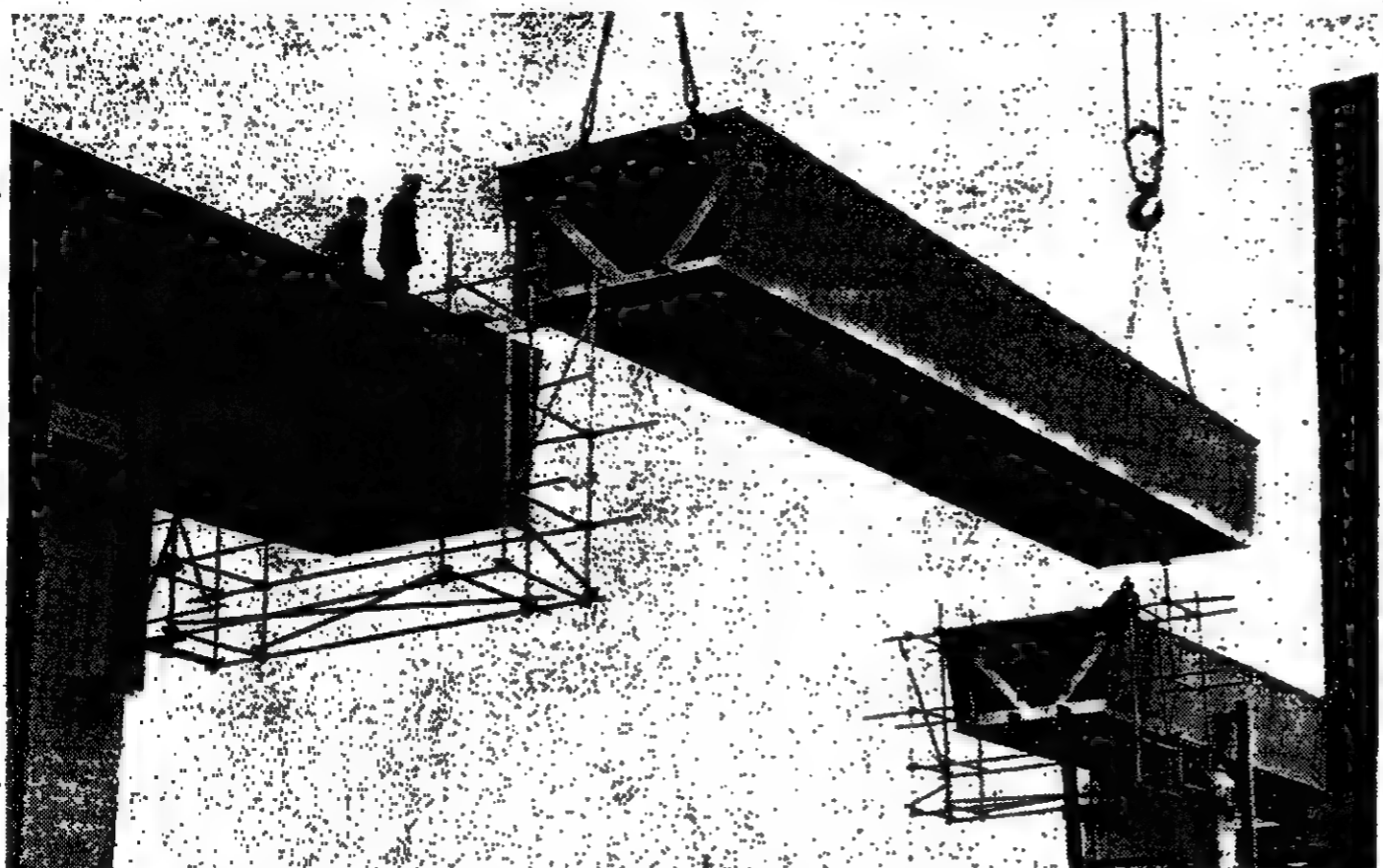
BALD SEAW and Partners, consulting engineers, have obtained to carry out the engineering aspects of the development for properties on Tortola, in the British Virgin Islands.

A multi-million dollar development which will include a basin with restaurant and sea wall protection, carried out over several years. It will be situated at Park, close to Road the main town on the island.

Construction is being carried out by the property company and first occupations anticipated in early 1974. Development will contain two and three bedroom units.

5m. plant extension

5m. extension being built to the existing plant for the construction of the new complex in Yorkshire, raw will be processed into surgical goods. The extension is on the seven-acre site and in a 7,870 square metres area to serve the north of the plant and a 3,281 square metres production area. Ancillary facilities will be built for specialist facilities and sterilisation. The extension will also provide a new road to link with the existing road and extensive parking and car parking.



Steel box girders being erected for one of two bridges on slip roads at Llandarcy, South Wales, leading to the interchange between the A48 and the new A485 trunk road. The highway, Llandarcy to Aberdare, has been designed for the Welsh Office by consulting engineers G. Mansell and Partners and is being constructed by a Kier-Sydney Green consortium. The bridges carry 6 metre wide roads over a deep railway cutting. The steel box girders were fabricated and erected by Redpath Dorman Lane.

Research into concrete design

COLLAPSIBLE concrete pit props for the National Coal Board and preliminary development work on concrete segments for the Channel Tunnel are two of the more unusual examples of recent work carried out by the Cement and Concrete Association's Design Research Department. However, these projects also reflect a change of emphasis in the Department's work towards a greater involvement in particular projects where use of concrete has to meet given criteria. Dr. George Somerville, who heads the Department—one of four within the C and CA's Research and Development Division—welcomes the change. While not detracting from pure research and development work, the present trend, he believes, is evidence of the essentially practical nature of his job. Most of the big problems associated with concrete—torsion, shear, cracking, for

example—have now been satisfactorily solved, although much remains to be done in the fields of reinforcement detailing and bearing capacity. When a consulting engineer, local authority or sometimes a contractor approaches the Department with a problem, it can occasionally be solved from known data. But if it cannot, and the problem is of reasonably general interest, then the C and CA will consider subsidising the work and integrating it into the research programme. Alternatively, the job will be tackled on a contract basis. For nearly two years before the recent Camden school collapse, the Design Research Department had been looking into the general problem of load-bearing on narrow supports. As a result of Camden, the work has been given an added impetus (with numerous inquiries received) and a change of direction, which nevertheless fits into the general research programme.

The Channel Tunnel is another example of a specific project fitting into general research being carried out on detailing at the joints of precast concrete segments. Questions asked included: Will the lining segments split? At what load? How much reinforcement should there be? What is the best method of detailing?

Work on this problem has also been done in France, where similar conclusions are believed to have been reached and three full-scale tests are now underway at the Polytechnic of Central London to confirm C and CA's detailing design. The concrete pit prop was undertaken after discussions with the NCB (and under a formal contract), because the Department was intrigued by the technical problems such a development presented. The solution required was a partly structural and partly a material one, with a prop able to compress to more than 40 per cent. of its original length, while at the same time taking the maximum load. The project was no less interesting in that the NCB, because of the prohibitively high

price of timber, was seeking—as one of several possibilities—the use of an alternative material. Concrete is basically cheap, but the question investigated and answered was: could it meet the given design criteria? The interest in concrete as an alternative to steel for offshore structures is considerable. Although there is no strong tradition of concrete platforms, there would appear to be no insurmountable difficulties in applying modern design methods to concrete sea structures. However, because the character of a concrete platform is different from a conventional land structure, there may be a need to investigate particular design and detailing problems.

Now is certainly the time to review these research requirements and Dr. Somerville hopes that his Department will become involved in the near future. On the subject of future research, Dr. Somerville considers that the problem of demolition of relatively modern structures could be worth studying, particularly where the structures are pre-stressed. While there should be no difficulties here if the principles of prestressed concrete construction are understood, new methods of demolition may well be introduced and could require investigation. Following on from research into pile caps in foundations, a whole new area for investigation could be at the level where soil and structure interact—for example into the increasing use of underground storage, above ground structures and structures would be another fruitful study. Any economic new materials developed for structural use would also have to be checked out from the design point of view, and this is happening at the moment with fibre-reinforced concrete.

In addition, if relative costs of building materials continue to change, concrete could conceivably be considered for applications in new areas or even new industries, and the technical aspects of this would require considerable research effort. As far as the C and CA are concerned, Dr. Somerville would like to see his Department tackling parts of the industry as a whole—precast buildings, bridges, offshore structures, docks, airfields, etc. Ideally he would set up a "speculative" unit to develop new applications for concrete, such as the pit prop. In this way, as with research and development into structures, the Department would be anticipating problems before they actually arise. On an international scale, the Comité Européen du Béton (European Concrete Association) has reached the stage of producing design manuals, although a European code of practice for concrete is still some way off. Significant differences in national codes, particularly in relation to permissible stress levels and load factors, have yet to be reconciled.

A STUDY OF THE BUILDING INDUSTRY WAGE STRUCTURE

This report which was prepared by Professor B. Fisher and his team from the Department of Building, The University of Manchester Institute of Science and Technology, takes an in-depth look at the problems both now and in the future, which confront the building construction industry. Copies are available from the organization which commissioned the study: IPC Building & Contract Journals Ltd., 32, Bedford Way, Road, London, EC1A 3JX. Registered Number 28895. The price is £2.50 including P. & P.

Call for more support

THE GOVERNMENT should take a lead in financing investment in construction research and development, the Institution of Civil Engineers maintains.

The ICE argues in its comments on the Beesbrough Report on industrial R and D that those who would benefit are those who commission works of construction—for the most part HM Government and local and statutory authorities. Thus it is to the community that benefits from R and D accrue.

"Although we do not think the construction industry would wish to set up a statutory levy based on turnover, we feel that an arrangement where it is so wished," the ICE says.

While there is a natural tendency in older industries for the ratio of R and D expenditure to industrial net output to be lower, the ratio of about 0.12 per cent. quoted by the Report is, in the ICE's view, too low. The institution considers that increased expenditure in the construction field would be much greater than the extra cost.

A special case is ocean engineering and the ICE considers that action on the part of the Government is urgently required. The Construction Industry Research and Information Association, through the Underwater Engineering Group, already promotes and carries out research in this field and the UEG could form the nucleus around which this aspect could be developed.

The comments have been sent to the Conference of Industrial Research Associations, the Chancellor of the Duchy of Lancaster and the Secretary of State for the Environment.

New orders for McAlpine

A £3m. factory for Schreiber Furniture, together with a warehouse, is to be built in Runcorn

New Town by Sir Alfred McAlpine.

New offices for City brokers

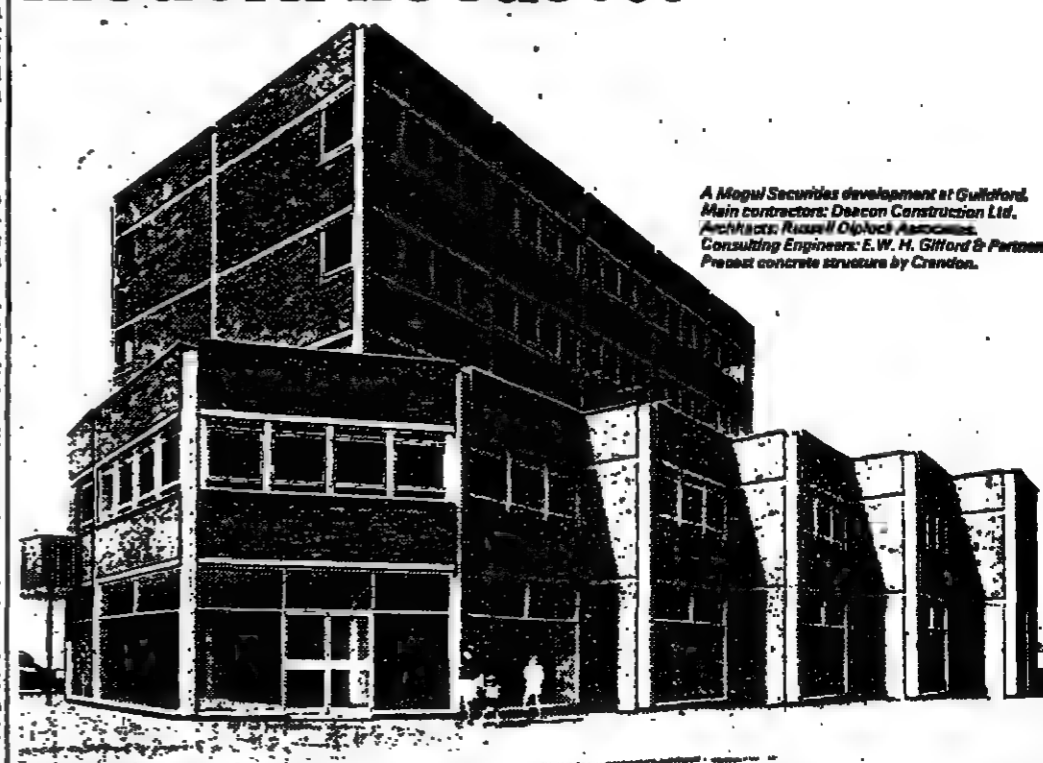
J. JARVIS AND SONS has started work on a £1.3m. office block at Barking, Essex, for Wigham Richardson and Bevington, insurance brokers, as part of a major decentralisation move by the company out of the City of London. The 10-storey block, which will be situated alongside Barking tube station, is scheduled for completion in February, 1975. Architects for the scheme are the Owen Luder Partnership.

Comparing water systems

THE BUILDING Research Establishment has commissioned the Heating and Ventilating Research Association to make laboratory studies of alternative designs of hot and cold water systems for local authority dwellings.

Five systems, selected by the BRE, are each being tested in rigs simulating three types of one-family house. The study arises from work of the tripartite committee for harmonising water regulations between Britain, France and Germany. "Discussions have shown the need for usable data on costs and performance on which future design can be based."

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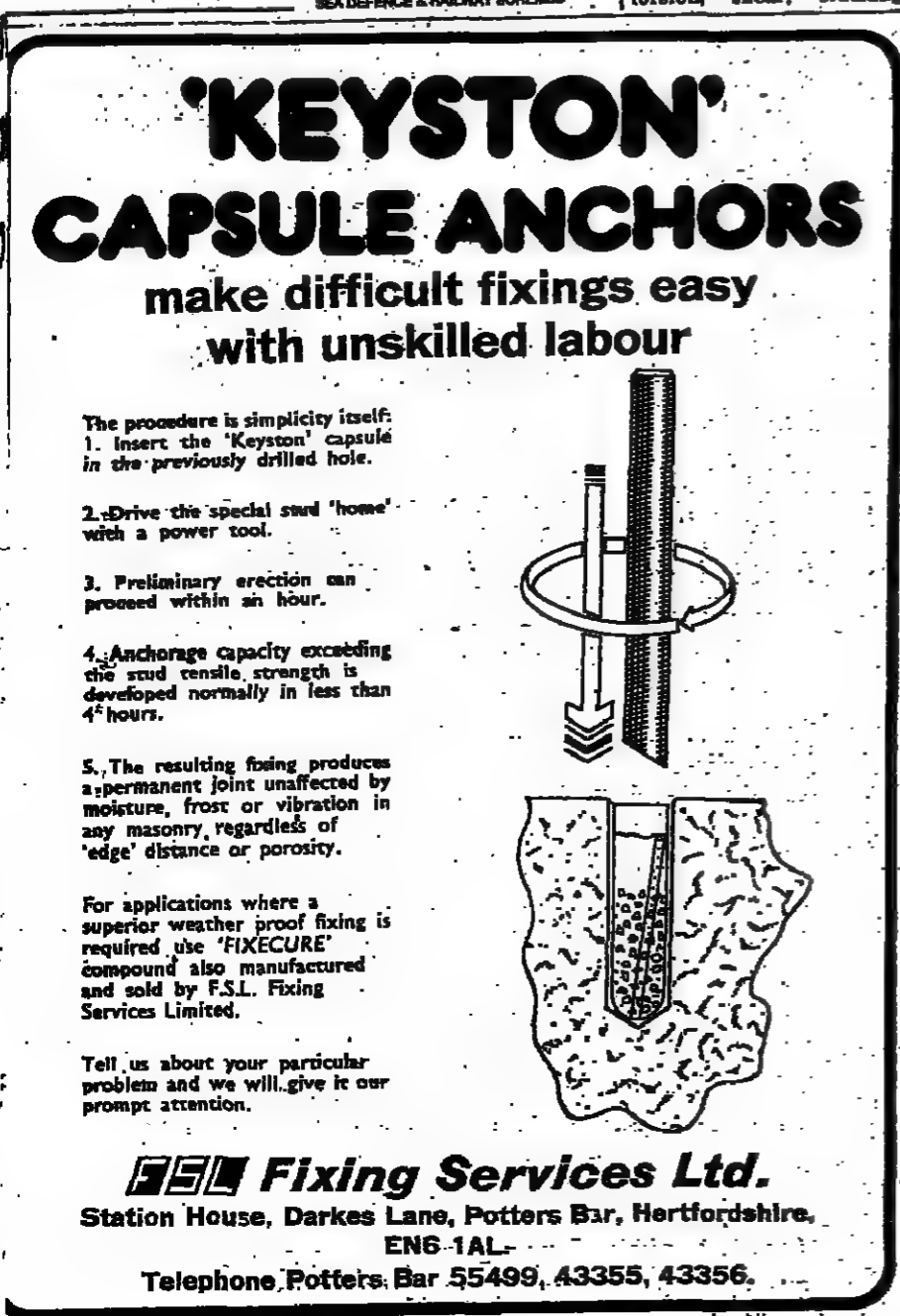


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The Executive's World: The Office

Word Processing will fundamentally change secretarial work.

Roy Levine reports on

The typist's latest ally

FOR the past 100 years, the office as a cost centre has been largely ignored. As work has expanded, so has the number of office staff as Whitehall testifies. Now, however, events are making management take a second look at their complacency. Costs are rising rapidly and must be checked; secretarial and clerical staff are in short supply; and many girls prefer to run a boutique or do temporary work rather than be subject to the same dreary round of typing and telephone calls. The fact that white-collar workers now comprise over a third of Britain's workforce makes the need for a rethink all the more vital.

Management, as they say, has a problem and, not surprisingly, the consultants and the equipment manufacturers are anxious to help. One of the most interesting ideas is a bundle of techniques and equipment which goes under the title Word Processing.

Basically, it embraces composing, dictating, recording, transcribing and typing words in the office.

It affects three interlinked areas—people, procedures and equipment—and involves changes in each. The benefits could be as important for a small company as for a large one.

The equipment involved includes automatic typewriters (really the heart of the concept), dictating machines, copiers, facsimile transmitters and even computers.

Growth market

Not surprisingly the concept was conceived by IBM (in Germany) in 1965. There is the theory that IBM realised that growth in the data processing market was slowing down, so looked around for another growth market and, after thorough research, adopted WP. Whether or not that is true (and IBM denies it) the corporation is certainly taking WP very seriously, as are other manufacturers of hardware in the U.S. and Europe.

WP brings both direct and indirect cost savings. Direct savings are made by employing fewer people and making the job more efficient. Although secretaries' typing speeds probably range between 40 and 60 words a minute, speeds usually fall considerably by the end of the day.

Theoretically, a competent typist can process over 1,000 lines in a 7½-hour day, but in practice she rarely exceeds 450 lines. Delays result from the

effects of handling, corrections and amendments, fatigue and interruptions. One minute spent on correcting an error can lose an hour's work in a day, given an average error rate of two-a-page and a work rate of 30 pages a day. That loss is compounded by errors in dictation, changes in the finished text and the natural slow-down in the pace of the typist as she reaches the end of a page.

WP is meant to eliminate the delays through electronic equipment which edits and processes

stalled its own WP centre, productivity has increased to over 23 words a minute against 9 words a minute.

"It is not too difficult to justify the cost," says Barry Jobling, manager of WP systems development. "The biggest hurdle is trying to get a change in attitudes." That comment might be commercially motivated, but there is a ring of truth in it. Certainly, British managers need to change their traditional ideas about the sacred cows of industry and commerce—the secretaries—

reckons the U.K. market will expand ten-fold in the next seven years, and acknowledges that UDS will lose some of its market share.

IBM, the only one offering a range of equipment for the whole WP market, is likely to take the lion's share. That power could result in WP becoming a rental rather than a purchase market and it remains to be seen whether WP suffers from high built-in obsolescence like data processing.

The rest of the U.K. WP



A girl can get through three times as much typing using Word Processing. Here the UDS Scribbers 100 is in operation.

texts extremely quickly. Dynamic memories installed in automatic typewriters locate and delete errors in a trice. As a result, the argument runs, secretaries feel relaxed about typing drafts and attain their maximum speed. At its most sophisticated, WP hardware, like the UDS Scribbers 100, can process correspondence, texts and reports at a constant speed of 180 words a minute. A "skip" speed of 800,000 characters per second provides almost instant reference to any point in the memory.

Although equipment costs vary from £2,500 to over £10,000 for a single unit or rentals of up to £180 a month, cost savings can be enormous. IBM U.K., for instance, claims that since it in-

stalled its own WP centre, productivity has increased to over 23 words a minute against 9 words a minute.

market is split between Flexidata, Dataplex, Olivetti and others. In the dictating and copier fields there are old favourites like Rank Xerox, Agovox, Kalle Infotec and others.

In the U.S. Word Processing is well-entrenched. Annual sales have grown from \$5m. in 1962 to over \$200m. this year, and £1,200m. is expected by 1980. That growth has given rise to the International Word Processing Association, an offshoot of the Administrative Management Society; the Word Processing Institute; and a string of seminars and publications. Xerox and other giants are preparing to enter the market to challenge IBM's estimated 85 per cent share. Sperry Rand came in this year.

In the U.K. attempts to form WP bodies have so far proved unsuccessful. But, if present predictions are even near the truth, WP will bring about a genuine revolution in the office. After all, the typewriter which did precisely that is 100 years old this year.

EXECUTIVE HEALTH

Regulations are only a start

BY DR. DAVID CARRICK

IF AN army in the field suddenly loses its leaders, the battle may be lost. But if only the leaders survive, not only the battle but the entire war is likely to end in defeat.

The same applies to business. The health of executives is obviously important; but the bounciest of businessmen is struggling without his secretary and, to a lesser degree, other members of his organisation. They need not be absent to impede the proper working of the organisation: for an office staff which is chronically debilitated mentally or physically and still goes on working may create greater chaos than occasional absentees. The wealth of those outside the office may well depend on the health of those within it.

Main factors are concerned in the maintenance of good health in offices. Some are simple and easily corrected; some are complex and problematical. A majority, however, result from a series of unfortunate circumstances which are often easier to remedy than would appear at first sight.

To make life better for office workers, certain regulations have been enacted over the years, the latest being the Offices, Shops and Railway Premises Act of 1963. This demands certain minimum requirements of lighting, temperature, overcrowding, cleanliness

and ventilation. The rules outlined in the Act are no more than minimum requirements for the prevention of conditions which are positively dangerous

to health. Only a stupid or mean employer will hold to such minima: the enlightened will aim for something very much better. Yet even the best employers may, because of unexpected and

unseen expansion of their enterprises, fail to recognise that conditions—particularly climatic ones—may be adversely affecting the health and efficiency of their

turbid by occupying a sort of no-man's land between the shouting shivers and their aimless antagonists. A good ventilating system plus double-glazing reduces the problem and increases efficiency.

Good lighting is of paramount importance. Natural light is theoretically ideal in that it has maximum intensity, uniform diffusion and no glare, but as only those fortunate enough to sit by a window in a building not hemmed in by other satank structures receive this blessing (and then only for a few hours in winter), artificial methods must be used.

The law demands illumination values of 161.15 lux per square foot for ordinary offices, a level that may suit owls or participant in orgies but not normal individuals. Most public health authorities recommend a figure three times higher. Adequate lighting can be obtained by staff lights with good diffusers. But these must be properly maintained, have dust and dead light removed regularly and, above all, be correctly sited. Unfortunately, owing to the Madhatter tea-party syndrome (the earlier rearrangement of furniture as personnel) not infrequently splendid light is seen blushing unseen behind piles of ledgers while the office staff blind through the gathering gloom and hopes to feel ill enough to avoid work on the morrow.

So, inadequate lighting and ventilation reduce morale and output—although not, perhaps, as much as overheated, destitute atmospheres which will be considered in the next article.

employees. Among the most important factors are ventilation, noise, light, temperature and relative humidity.

The first two tend to be inseparable in older offices situated along busy streets. Often individuals further from the window may demand more air while the denizens close to it not only hate draughts but cannot bear the roar of the traffic. Only those in the middle are relatively happy unless dis-

by keeping out winter cold. It is transparent only from within the office thus allowing people to look out, while people outside cannot see in. It is also aesthetically pleasing and comes in six colours.

Importing agents for the fabric are C. Nathan and Company in London and some of the major curtain contractors include The Daymar Group of Manchester, D. Matthews and Son of Liverpool and John Lewis, Mr. D. W. Kay, chairman of Daymar, estimates the costs of a curtain at 80p to 78p a square foot of window covered including installation charges. His group installs Verosol curtains anywhere in Europe. Customers in this country include Burmah Oil and Gulf Oil.

Bljdenstein's apparent reluctance to advertise may have inhibited promotion of Verosol which has had a steady rather than dramatic growth in the U.K. But perhaps the benefit is ease of delivery which is well under two weeks.

One of the main successes was at New Zealand House, described as "a glass box and heat trap." The installation of Verosol reduced capacity of the ventilation plant by some 30 per cent.

Although exact prices have not yet been fixed, the new Verosol sunscreens will probably be more expensive than Verosol curtains or conventional venetian and roller blinds with which they will compete. Production is expected to start some time this year.

Initially, marketing will be aimed at offices but G. Hall claims there is also a market for schools and domestic users. Considering the vast number of office windows which are unprotected from the sun and weather, there should be scope for all these products.

R.L.

See-through window blind

A NEW product soon to be launched on the market will help make the office more comfortable and attractive while also contributing to cutting heating and ventilating bills.

It is a Venetian blind made from fabric rather than metal slats and will be manufactured under licence by G. Hall and Co. in Portsmouth. The fabric, invented and made by Bljdenstein-Willink N.V. in Holland, is called Verosol.

Until now, the product—a polyester fabric with a vacuum bonded aluminium backing—has been marketed as a curtain in competition with conventional venetian and roller blinds.

Its properties are more comprehensive than those of blinds or other forms of anti-glare materials like tinted glass and double-glazed windows. Apart from cutting down glare from the sun, it insulates the room in winter from heat loss—thus making a saving on heating bills—and also enables air conditioning to work more efficiently

U.S. data bank for mail shots

SOME 35,000 of America's largest companies and 300,000 of their senior executives are claimed to be included in a central data bank called Compmark launched by Standard and Poor's Corporation in the U.S. two months ago.

The service is now being offered in the U.K. but as yet there are no plans to set up a similar one here for Britain or the Common Market.

Standard and Poor says it is providing a tailor-made service designed to meet the differing needs of its clients. Subscribers can get profile cards about companies and individual executives or if they want they can have mail promotion labels addressed to a particular man.

Subscribers can select companies by their industrial category, ownership, or location and executives by job, age, profession, address or education. If successful the service could provide "leads" for salesmen, aid the work of market researchers and provide lists for mailing shots.

Standard and Poor's Corp. 34, Dover Street, London W1X 3RA.

Business evaluator

TO-DAY Norman Business Publications issues a revised version of its Business Evaluator for those concerned with finance and administration. This Evaluator, like its three companion volumes for the managing director, sales and marketing men, and operations people, asks simple questions which should lead executives to question the objectives of their business.

This year, for the first time, the finance and administration Evaluator carries a folder of notation sheets to help finance directors and ordinary administrators carry out and keep track of action programmes suggested to them by the Evaluator. The volume itself enables the administrator to cover a period of three years, again for the first time, so that a continuous record of company progress can be kept. Norman Skinner, compiler of these volumes, suggests that it need only take 20 minutes a day to read the questions.

The finance and administration volume covers the field of communications, financial planning, cost control, credit control, electronic data processing, the vital management ratios, and all the other sub-divisions of the financial man's job. The Business Evaluator, Finance and Administration, is available from Norman Business Publications, 168, Camden Hill Road, London, W.8. For £28.50.

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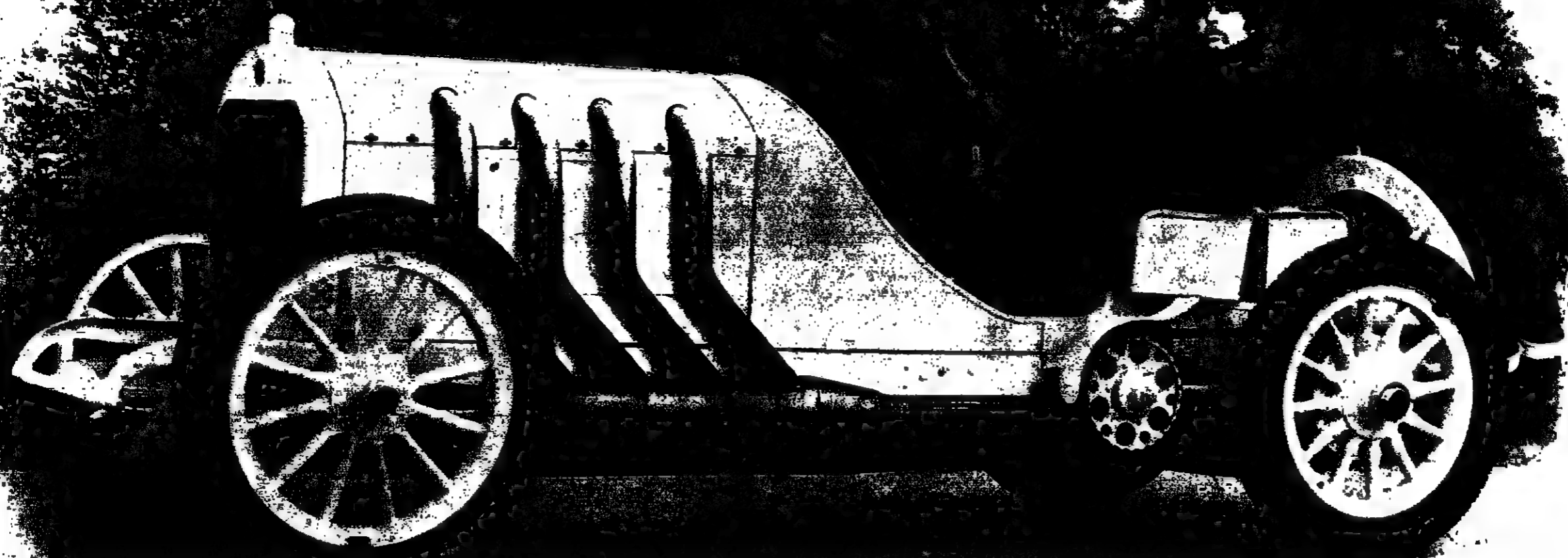
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Stopping wasn't easy. On the 150 hp Benz in our picture, for instance, you had cable brakes. On the rear wheels only.

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As someone exclaimed to a well-known racing driver of the day: '120 mph and cable brakes only—how on earth can you do it?'

'Look,' came the reply, 'we make these cars for going, not for stopping!'

The story's worth re-telling, for there's another point which—though obvious—is also forgotten these days.

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to make cars faster. It's been to make them safer.

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We patented the first safety car body in the world as long ago as 1951. Made the steering shock absorber standard in 1952, front discs in 1962. And so on, until today.

Mercedes-Benz concern with safety is no recent development, conjured up in response to public demand. Our cars have been built safer and safer for more than forty years.

This is why—perhaps more than in any other car—you always get that extraordinary feeling of security in a Mercedes, without ever feeling bored.

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MONDAY NOVEMBER 19 1973

Anglo-French problems

THIS WEEK-END'S visit by President Pompidou came at a critical moment in the development of the EEC. The Community is entering into a particularly frenzied period of internal negotiation as it tries to sort out, before the end of the year, the main problems which the enlargement has thrown up. The Heads of the Nine are to meet in Copenhagen in the middle of December to plot their course. In addition, the Community is passing through a major oil crisis—a subject that raises not only technical problems but fundamental questions about the existence of a Community foreign policy.

In this situation it is agreeable to hear the usual reports of the affability and rapport which Mr. Heath and the French President have maintained during their latest round of talks; and the signature of the Channel Tunnel agreement can be seen as a bonus with symbolic overtones.

More stringent

But the real success or failure of the discussions must be judged by more stringent criteria.

The points at issue between France and Britain at present are not as great as they were; and recently, particularly on the Middle East, there have been signs of a genuine London-Paris axis. But it would be dangerous to pretend that divergences do not exist. They are summed up in two main questions—first, how much must a Community whose original rules were conspicuously adapted to French interests be modified by its enlargement? and second, how far and how fast and in what way should the Community advance towards developing a "European" identity?

An explosive mix in Greece

THE STUDENT riots in Athens have severely shaken any hopes that President Papadopoulos and his new Prime Minister, Mr. Markizis, can achieve a smooth transition from Colonel's rule to a regime with democratic pretensions. Mr. Markizis, it is announced officially in Athens, remains determined to hold fair elections as soon as practicable. Those are brave words, and his personal sincerity need not be doubted.

The present situation developed originally out of the annual demands of university students seeking for increased academic freedom and for a modernisation of the antiquated educational system. Neither the students nor the Government, however, proved willing to heed a request from the Polytechnic Senate that this should be treated as a purely internal affair and it has ended—despite the apparently confused motives of many of those involved in the demonstrations—in bloodshed.

This week-end is going to make the Prime Minister's task harder than it was. For a start, many supporters of the original junta who do not agree with President Papadopoulos' new line may have their hands strengthened. Martial law, repression, and courts-martial provide a setting in which the ultras may slip back into positions of influence. It is fair to say that among them there are men of genuine idealism who found themselves out of sympathy with President Papadopoulos long before he began to talk of elections. Their charge, in brief, is that the regime had become corrupted by power.

Signal failure

More serious, however, is the possibility that rebelliousness may spread from the universities to the industrial towns. So far that has not happened. But the signal failure of the regime to maintain its previously good record in combining relatively stable prices with growth may bring the urban working classes out of their reserve.

It was with that danger in mind that Mr. Markizis last

The British Government's position, held more strongly because of the need to reassure a wavering British public opinion, is that internal policies must be adapted radically and this process is an integral part of developing "the new Europe."

The French continue to resist adaptations—notably in the case of the Common Agricultural Policy and the introduction of a large Regional Development Fund—which will affect the predominance of their own interest; and, while they are agreed in principle upon the need to go forward with the development of the Community, they tend for obvious reasons to want this to be treated quite separately from immediate and disputed questions.

Mutual sacrifices

Recent events have strengthened Mr. Heath's hand in this clash of outlooks, since it has been clear during the oil crisis that Community foreign policy and questions of energy distribution are intimately related. Moreover, the accident that the Copenhagen meeting will take place between two crucial sessions of the EEC Council of Ministers will enable Mr. Heath to insist that the bread-and-butter issues which should intrude upon the Summit.

The British public, nevertheless, peering between the lines of reports of the Chequers meeting, will still not be able to tell how far Mr. Heath has influenced President Pompidou. It is possible that Mr. Heath does not yet know himself. The signs suggest that French policy is slowly adapting itself to new realities and, indeed, that the future is sufficiently forbidding for Europe as a whole to make for mutual sacrifices all round. The question is whether this process will be quick enough.

WITH its announcement on Friday of an emergency oil-saving programme featuring a 10 per cent cut in the supply of oil and electricity to major industries, Japan has become the first big industrial nation to acknowledge the full seriousness of the Arab oil boycott. The fact that it has done so is not a tribute to the foresight of the Japanese authorities.

When the Arab leaders first unveiled their oil weapon last month with the announcement of a 5 per cent progressive monthly cut in production, Japan was less well prepared than almost any other major oil consumer to deal with a shortage. Even today, the Government has no legislation ready to enforce oil rationing and has had to rely on the ill-defined mechanism of "administrative guidance" to industry to see that its instructions are carried out.

But the intensity of Japan's awakening to the oil crisis contrasts with its painful awareness of its predicament today. Roughly 75 per cent of Japan's energy requirements are met by imported oil and no less than 80 per cent of those imports come from the Middle East, including 40 per cent from the Arab countries which have adopted the oil weapon. With these figures to go on, the Japanese are only too well aware that what confronts them as a result of the oil boycott is something not far short of economic disaster.

Even if one looks no further than the immediate impact on major industries of the energy saving programme already announced, the picture looks black enough. Rapid, off-the-cuff estimates by businessmen have suggested production cuts ranging from 6 to 8 per cent in the steel industry (which is only marginally dependent on oil), through 10 per cent in cement, up to 12 to 14 per cent in aluminium and as much as 30 per cent in paper and pulp.

These cuts will in turn affect secondary industries such as motors and electronics (which will be hit two ways by the crisis, in terms both of raw materials and of power supplies), so that the impact on the overall volume of industrial output will be very grave indeed. Government officials have estimated that Japan's overall economic growth for the remainder of the current financial year (ending on March 30, 1974) may be zero or even negative. This would reduce growth for the financial year as a whole (compared with 1972) to around 8 per cent. This contrasts with the estimates of 9 or 10 per cent which were current before the oil crisis burst upon Japan. But it is important to realise that most of the talk about production levels is based on the assumption that the Government

will not have to go beyond its existing programme of oil conservation cuts. This, however, is precisely what is in doubt.



"Off-the-cuff" estimates by businessmen have suggested production cuts ranging from 6 to 8 per cent in the steel industry... and as much as 30 per cent in paper and pulp."

that year. This would make 1974 the most disastrous year in Japan's economic history since the immediate aftermath of the Second World War. Just how disastrous can be appreciated when one remembers that Japan normally considers itself to be in recession when the GNP records a positive growth of 4 or 5 per cent in one year.

Stocks of crude

Officials have estimated that the saving campaign announced last week will reduce Japan's overall oil consumption by between 6 and 8 per cent. By contrast, the cut in oil supplies is put by the Government at around 20 per cent. (and some analysts in the oil industry regard this as a very optimistic assessment). Japan's stocks of crude oil and of finished and semi-finished oil products are equivalent to 59 days' consumption, a level which the Ministry of International Trade and Industry considers to be "very meagre" in relation to the stocks held by most European countries. If these stocks are not to be drawn down to dangerously low levels, the rationing system will have to be tightened up before long. It is hardly surprising that officials acknowledge privately that this is likely to happen (failing a solution to the Middle East crisis and a lifting of the oil embargo) very early in the New Year.

Taking a longer range view of the impact of the oil crisis on production levels, the Government has estimated that the GNP might decline by a catastrophic 5.5 per cent in the financial year 1974 if the oil embargo continues throughout that year, and failing a massive substitution of other kinds of energy for oil in the course of

year's levels. The Government thus has to find a way of cutting back consumer demand from its current extravagant levels to an extent which will be totally at variance with anything in Japan's recent experience. And it has to do so at a time when inflationary pressures caused by raw material shortages in many sectors of the economy are already causing serious worries.

OIL AS % OF JAPANESE ENERGY REQUIREMENT

Year	% of Japanese Energy Requirement
1961	39.9
1962	44
1963	51.8
1964	55.7
1965	58.4
1966	60.4
1967	64.6
1968	66.5
1969	68.2
1970	70.8
1971	73.5

Source: MITI

But the full implications of the crisis which could be unleashed by the oil embargo are not confined to the GNP growth rate or to the damage which might be done to Japan's reputation for economic dynamism. What is still more unfortunate about the oil crisis is its probable effect in destroying the balance between supply and demand in an economy where such things usually rest on a knife-edge.

The crisis has come at a time when Japan's consumers have plenty of money in their pockets. Last spring's industrial wage award averaged 20 per cent across the board and department-store sales in September were running at 31 per cent above the previous

year's levels. The Government has to find a way of cutting back consumer demand from its current extravagant levels to an extent which will be totally at variance with anything in Japan's recent experience. And it has to do so at a time when inflationary pressures caused by raw material shortages in many sectors of the economy are already causing serious worries.

Consumer index

Japan's wholesale price index, which reflects world commodity prices and the rising costs of many processed industrial materials, is already running at slightly more than 20 per cent above the level of a year ago, while the consumer index is up by 15 per cent. Credit restraints have remained tight following four successive increases in the Bank of Japan's discount rate last spring and summer, and there have been signs recently that Japanese industry was reacting to these restraints with a scaling down of its investment plans for 1974.

Because its credit policy had begun to work anyway, and because the economy will have to be slowed down much more sharply than was originally foreseen, the Government will presumably maintain the current restrictions instead of relaxing them early next year as originally expected. But it would be wildly optimistic to assume that measures which were adopted to deal with a conventional case of economic overheating will be adequate to cope

with the bout of inflationary stagnation likely to be brought on by the oil crisis.

The reduction or reversal of Japan's growth rate over the next few months will almost certainly produce a spate of bankruptcies among Japanese companies which traditionally rely on borrowed funds for up to 80 per cent of their capital and frequently find it hard to meet their financial obligations when business slackens. The Government will have to find ways of tidying industry over its financial crisis, either by launching a series of "rescue operations" similar to those carried out in the 1964 recession or, more drastically, by allowing some companies simply to write off their debts. At the same time it will have to reconsider many of its own cherished plans for the coming year.

Year-end bonuses

A projected cut in personal income tax which had been announced by the Prime Minister, Mr. Kakuei Tanaka, with an obvious eye to next year's elections in the upper house of the Diet is now likely to be scrutinised very seriously indeed. The Prime Minister's plans for the launching of a series of major capital works (including the construction of a series of new high-speed railways) which were to have formed part of his programme for "remodelling the Japanese archipelago" will almost certainly have to be delayed. In the meantime it may be quite the same again.

necessary for the Government to take the unprecedented step of ordering a freeze on the payment of the traditional year-end bonuses to industrial workers. The value of this year's bonuses swollen by the 20 per cent wage award of last spring, estimated at ¥7,000,000m, would be enough on its own to produce a burst of consumer demand around the end of the year. This could undermine the effects of measures to prevent hoarding of scarce commodities which have been promised as part of the Government's emergency programme.

A final, and perhaps not wholly unwelcome, effect of the oil crisis on Japan's economy is that it should stimulate the demand for certain types of imports. Japan may need to compensate for domestic shortages of manufactured products by buying more of those products abroad and, for the time being at least, it need not worry about not having enough foreign exchange to do so. The reserve still stands at just over \$14,000m which is felt to be an adequate cushion for a continuing deficit in the balance of payments. If continuing deficit also means permanently weak Yen, Japan will not worry unduly, although there is some concern about the reactions from Japan's European trading partners to a significant devaluation of the Yen against European currencies.

But the fact that Japan's economic crisis may increase its imports of manufactured goods does not mean that the world in general can expect to benefit from what seems to be about to happen to the Japanese. The revelations that a small group of oil-exporting countries can hold a pistol to what has hitherto been one of the world's most successful economies has shaken the confidence of the Japanese in their system and prompts some disturbing questions.

Political leverage

One of the most obvious is whether Japan's Right-wing Liberal Democratic Government can survive the blow to its prestige from a crisis which stems at least in part from its own lack of foresight. Another question concerns Japan's position in the world as a major economic power almost totally lacking in any form of political leverage. It can be argued that Japan would have been less vulnerable to the Arab oil weapon if its habit of looking to the U.S. for political leadership had not prevented it from adopting an independent posture vis-à-vis the Middle East. Even if the Japanese come through the oil crisis without a major internal upheaval, it is unlikely that their attitude to American alliance will ever be quite the same again.

MEN AND MATTERS

Muddled prelude to Pergamon finale

With Pergamon Press due to hold a meeting to-morrow on whether former chairman Robert Maxwell is (finally) in or out, any shareholders wanting to study the third Department of Trade and Industry report on the company and Maxwell before the meeting starts will need to have their eyeballs lubricated. For puzzling reasons known only to Sir Geoffrey Howe, Minister for Trade and Consumer Affairs, the report will not be available until to-morrow morning. It promises to be quite a document—400 pages long—which is more than twice the length of the previous Pergamon offerings. So with the meeting due to start at 11 a.m. in London's Connaught Rooms, any shareholder-reporter determined not to miss a thing will need to scan a page every twenty seconds.

Nothing about Pergamon is conventional. So there should be no surprise that Maxwell himself is promising to let the Press in on the secrets, or what is left of them, this afternoon. But the outside world will still be in the dark until the Government's time for releasing the report to-morrow morning.

Maxwell has fought long and hard to persuade everyone that the DIT's inspectors have acted most unfairly in pillorying him in their reports. Over the week-end it leaked out that an error had crept into the latest edition, so that some form of modifying statement will be added to the published reports. Also, the report will probably stop short of casting Maxwell as "a person who could not be relied on to exercise proper stewardship of a publicly quoted company," the accusation levelled before.

These two points look like

aiding Maxwell's cause. His allies say that his rejoinder to the investigation will be short and to the point. Pergamon's Board now backs him. Institutional investors might now swing over to his side. This leaves the men of Leasco, with 38 per cent of the votes, implacably opposed to his re-election.

It was at the end of a long, noisy day in the Connaught Rooms four years ago that he was ousted. Should to-morrow see his return, one of his early tasks will be to continue negotiations with the Russians on reproduction rights. At present, they spend £9,000 on Pergamon publications a year and reprint. It is claimed, £750,000 worth. This well-worn tradition of denying the relevant copyright and reproduction fees has infuriated Western publishers for years and Maxwell would become popular in the trade if he could persuade the Russians to adopt a new attitude. But perhaps successive Maxwell victories over American capitalism and Russian communism are expecting too much of even this improbable sage.

Reacting to crisis

The Premier of any nation cannot take and implement more than eight or ten major decisions a year. This thought, pleasing at a time when great men seem to be trying to change the course of history every week, I have from Dr. Edward David. He speaks as, for two-and-a-half years from 1970, President Nixon's Science Advisor and Director, Office of Science and Technology.

That meant presenting the facts for presidential decisions on R & D programmes in defence, space and civilian areas like health, education and

energy. David says he has compared notes with Lord Rothschild of our Central Policy Review Staff and the two scientists agreed about the limits on their leaders' decision-making.

If this is true of government, what about industry? David is now executive vice-president, research and development, for Gould Laboratories, once a sleepy battery maker, now billed as "the integrated technology company" with an impressive growth rate in electrical, electronic and automotive products. David agrees that in industry it is even harder than in government to direct research away from space and defence and into the civilian field. But Gould, for instance, is moving out of defence contracts to concentrate on areas like health (electronics for hospitals) and energy storage. David was here looking at possible European acquisitions, for although Gould has a U.K. subsidiary, Brush Clevite, it still has some room left in a £30m. European expansion programme announced two years ago.

But won't industry always react too late to problems like the energy crisis? David retains faith in the system, pleased that the "Arabs are forcing us to become more independent of fossil fuels" and ensuring more money to develop nuclear and solar energy systems. He admits, though, that the basic problem will remain: "The indecision of governments until things reach crisis proportions is a fact of democracy."

Plotting a route for Charterhouse

If some people get muddled by the Charterhouse Group's mixture of financial and industrial interests, Charterhouse itself does not admit to being worried. Nor does its new group finance director, Geoffrey

Rowett, although he goes with a specific brief to look at the group's "long-term development plans." This sort of business, he says, "goes through a period of acquiring interests and every so often has to review the strategy."

At 48, Rowett joins Charterhouse from the British Steel Corporation, where he has done only a one-year stint as managing director for corporate finance. The current reorganisation going on under the new BSC chairman, Dr. Monty Finiston, has meant that the job Rowett went to do no longer exists in the same form: so he is leaving, "quite amicably," he says, to do a similar finance and planning job for Charterhouse.

Rowett is cautious about saying just what future shape he will help to plan for Charterhouse, contenting himself by saying, "my job will be to crystallise thinking." But he has a suitably varied background, being an accountant who spent 11 years with the P-E Consulting Group before joining the Thomson Organisation, where he was in turn managing director of the Sunday Times and director and general manager of Times Newspapers. It was the newspaper jobs which developed his interest in planning.

To-day, this may not be such a popular area of management as it was in the 1960s. But Rowett draws attention to BSC's £3,000m. ten-year investment plan as an example of how planning concentrates the mind.

Wet

Two teams of flies were playing football in a saucer. At full-time, the winning captain conceded his opposite number, "Never mind, old sport, next week we're in the cup."

Observer

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هكذا من الأهل

Scotland

CHRIS BAUR, Scottish Correspondent

Fresh opportunities

houses, among its trade unions and development agencies and within Government—have become conditioned by the need

envisage that the peninsula could provide over 6,000 new jobs by 1980, generating a further 9,000 jobs in indirect

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The development of Hunterston on the lines proposed could take the sting out of the emigration, which reached a peak of 43,000 in 1987, but dropped back to 27,000 last year, and looks like being further cut



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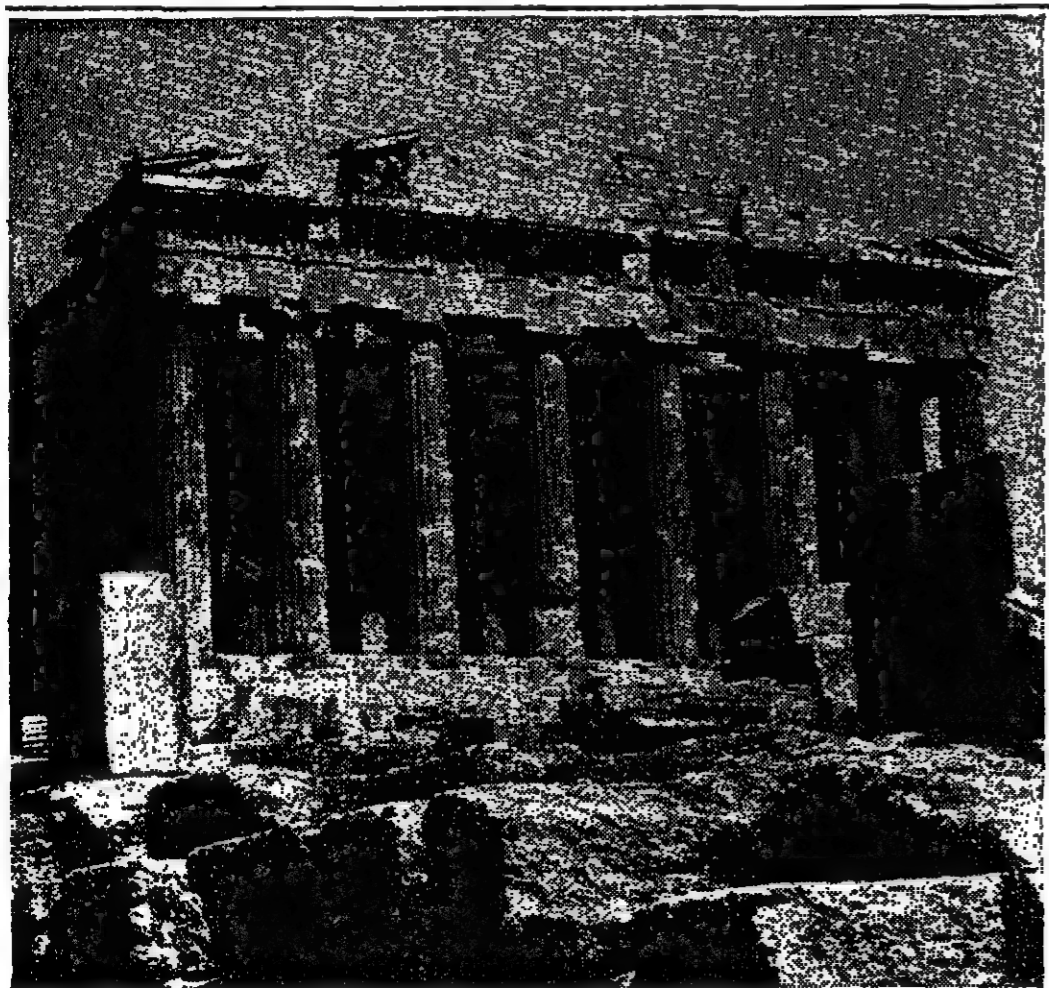
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SCOTLAND II

Political uneasiness

By CHRIS BAUR

Within eight days of each other, earlier this month, the Kilbrandon Commission on the Constitution produced majority proposals for creating elected, legislative assemblies in Scotland and Wales; and the Scottish National Party returned its second MP to the Commons when it seized Labour's safe Glasgow Govan constituency at a by-election.

On the face of it, the two events may seem to be only tenuously linked. Kilbrandon, after all, did reject the SNP's "separatist" policy on the unanswerable grounds that there was no popular majority demand for complete independence. Conversely, it would be wrong to interpret the Govan result as a decisive vote for Scottish independence. In contradiction to Kilbrandon's finding.

Govan was symptomatic of a dissatisfied mood in Scotland. Kilbrandon contributed to that mood simply by analysing it and attempting to pour it into the mould of a reformed constitution. The mould he chose will not satisfy everyone—it would be surprising if it could.

The point that will get through to most people, however, will be the deep sense of unease reflected in both the majority and minority Kilbrandon documents, concerning the country's widespread alienation from Government and the sense of remoteness of the ruled from the rulers.

There will be strong public agreement, one imagines, that "something needs to be done." It is probably right to comment, in a Scottish context certainly, that the argument about devolution is now over: the argument from now on is about how much and when.

Major division

It is here that the major division within the Commission itself (leading to publication of a two-member dissenting report) may become extremely important to the parties. The logical progression of the Commission's majority led it to place more weight, it seems, on the sense of national identity which it found in Scotland and Wales, and which it felt should be recognised by the creation of a law-making "Parliament" with competence in all Scottish domestic matters. The minority placed more weight on the evidence of considerable demand which it found for devolution throughout the U.K. This led it to propose seven equally-powered, but non-legislative "Parliaments" for Scotland and Wales and five English regions.

In a curious way, the distinction between the two sets of proposals may not be greatly exciting to the electorate, even given the present Scottish mood for reform. What the devolutionists want is movement from the existing set-up. In fact, both sets of proposals give them substantial movement.

Debate has focused, not unnaturally, on the proposed legislative model, for two

reasons: it went farthest and it was supported by a majority of the Commission. However, if the minority proposals had been adopted by the entire Commission, it is a fair guess that they, too, would have been as broadly welcomed in the devolutionist camps of all four parties.

The minority proposals, after all, envisage an elected Scottish "Parliament" and "Government" with "control" over all domestic policies and with a degree of independent financing. The quoted words above may tend to become the essential words in any political campaigning which might be done on the basis of Kilbrandon.

Subtle points

The important point now is that the distinctions between the two main Kilbrandon proposals, and the subtle shades of meaning contained in both, are matters for division and reconciliation by the professional politicians. It is difficult to imagine the two main Kilbrandon options themselves creating deep public dissension within Scotland. This arises for a number of reasons. There is a sense that something is wrong with the way Scotland is managed. The disturbing fact, uncovered by Kilbrandon, that more than half of all Scots do not know of the Secretary of State for Scotland's post, illustrates an area of concern about the relevance of existing arrangements to ordinary people—and it is a concern which cannot be explained away totally in terms of poor Scottish Office communications.

There is a feeling, too, that at this moment in history, the deal from the 1707 Union has not been altogether square. These feelings have been heightened by the existence of North Sea, oil, and, paradoxically, by Britain's entry into the EEC, where the shift of power from Westminster to Brussels may lessen the overriding importance to Scotland of having a Minister in Cabinet.

During the last decade, the SNP has increasingly represented itself as the vehicle for expressing this mood. It is no longer possible to dismiss the party's performances as the product merely of by-election irrationality, fed by "special conditions" in the seats, like Govan, which they have won. Those special conditions, of course, exist, so that it is nonsense of the profoundest sort to suggest that Govan's capture, for instance, means that none of Labour's 43 Scottish seats are any longer safe. That is no more true now than it was after Hamilton in 1967.

Nevertheless, the implication of the SNP's gradual advance in the last ten years is profoundly worrying for the two major parties. In West Lothian, Pollok, Hamilton, Gorbals, Stirling and Falkirk, East Dundee and now Govan (and even North Edinburgh), the SNP has shown that it can pull out, at the very least, a credit-

able by-election vote in mostly Labour seats of very diverse character. Similarly, they can point to a residue of interesting second-placings from the last General Election in Tory seats like Argyll, East Aberdeen, South Angus, Banff, Moray and Nairn and Galloway.

It is that latent force, as well as Kilbrandon's examination, which will help to fashion the devolution debate. Neither will go away, despite the major parties' anxiety to kill-off the Kilbrandon reports. Indeed, that initial reaction, so evident in the Commons' politely damning reception of Kilbrandon, may have to be modified by both major parties to give at least the impression of movement.

It is here that the attitudes (and strength) of the devolutionist factions within both the Scottish Labour and Tory parties will be important. These are the only factions to which the party leaderships at Westminster seem remotely likely to respond.

The Conservatives have their Scottish Convention proposal, a sort of neutered-Kilbrandon, but a proposal nonetheless and one bearing Sir Alec Douglas Home's influential name. The Government is also committed to producing proposals for debate, presumably in Green Paper form, before the next Election. There is, therefore, on the Government side, at least the impression of activity.

Labour's situation is somewhat more difficult. Tactically it has limited its room for manoeuvre by producing a Scottish executive policy statement on devolution deliberately timed to pre-empt debate on Kilbrandon. It rejected all optional forms of Scottish assembly, and chose instead to propose a strengthening of the Scottish Select and Grand Committee in the Commons, with the possibility that those committees might occasionally sit in Edinburgh.

Labour attitude

The importance of that move was that it was really designed to take the ground from beneath those in the Labour movement in Scotland whose minds are turning towards more extensive reforms. The Scottish TUC has stuck to its proposal for an elected Scottish Assembly. And within the Labour Party there is now a group of some 17 Scots Backbenchers—more than a third of the Scottish contingent in the Commons—which is seriously examining the notion of a Scottish Parliament in the context of the EEC.

Within these broad trends, the argument will probably become focused initially on four or five main issues. There will, first, be genuine all-party concern about Kilbrandon's proposal to reduce the number of Scottish MPs by about 14 and to abolish the position of Secretary of State for Scotland. Many will ask whether Kilbrandon is proposing a fair swap—whether he is not proposing to pay too high a price in return for an Assembly with no powers at all in the main area of Scottish obsession, economic development.

Second, there will presumably be a polarising of attitudes around the somewhat stark choice which Kilbrandon seems to offer—the choice ultimately between tinkering ineffectually with the present system, or producing reforms which are tantamount to creating an independent Scotland. For many again, this choice will be altogether too stark.

Third, there will be a rebirth of the notion that the whole argument can be made to evaporate if Scotland's economy is put right. The proposition that the SNP attracts support only at times of economic difficulty, is now a thoroughbred. On the other hand there is now some evidence that what we may be seeing is a persisting support for the Nationalists, even in times of prospective economic well-being.

Fourth, there will be debate about the adequacy of EEC entry on Scotland. There is already some support for the idea that, with powers being transferred to Brussels, Scotland should have means of directly representing its views to influence, for instance, the shape of EEC regional policies.

Finally, and perhaps most pertinently, there will be a breathless urge within the major parties to point out that Kilbrandon is too late—that the proposed new tiers of Government can no longer be accommodated comfortably between Westminster and the new regional units of local government which begin coming into force next year. In particular, it will be argued, the existence of the massive Strathclyde regional authority in the West of Scotland (covering half Scotland's population) is inconsistent with an all-Scotland domestic Parliament. The history books may record that last month's last-ditch attempt in the Lords to get the Strathclyde region split up into four local government regions, was something of a dress rehearsal for the fight over Kilbrandon. It failed.

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CONTINUED FROM PREVIOUS PAGE

Horizons

the right place nor (more worryingly) of the right type to match current industrial demand.

This is partially demonstrated by the situation in the North-east of Scotland, where there is a chronic shortage of labour, particularly in the construction industry. Aberdeen itself, with an unemployment rate of 1.8 per cent, is now in an overheated situation comparable to that of the South-east of England during the mid-1960s.

For both the Aberdeenshire and Cromarty Firth areas there seems little but a medium-term promise of attracting the labour they need because of shortages of housing. In Easter Ross arrangements have been made to supply 2,300 local authority houses by 1975, while in Aberdeenshire some 4,000 local authority houses are under construction, waiting a start or planned, and the Government has authorised the Scottish Special Housing Association to build 1,200 houses by 1975.

With this immediate cross to bear in the North-east, another, of a profounder nature, is currently being defined in the industrial West. By about the beginning of next year, the West Central Scotland Planning Group should be ready to produce the results of its three-year analysis of the region and its economic and physical plan for the future.

What is known of the Group's work so far indicates a most unhappy picture. During the 12 years to 1971, the West of Scotland suffered a net loss in employment totalling 73,000 jobs. Two-thirds of this occurred in only one year, 1970-71. The Group's forecasts for the ten years to 1981 reflect continuing uncertainty. Its most optimistic calculation is that unemployment will grow by just over 34,000; its most pessimistic is that it will decline by a further 52,000.

In manufacturing industry hardly any growth at all is registered even in the top ranges of its most optimistic estimates. On emigration, the Group estimates that even if the region's unemployment can be halved to 3 per cent, by the early 1980s, the region will still continue to suffer a loss at the rate of 13,000 a year.

Indeed, as the position in the rest of Scotland improves, the West's will experience a proportionate deterioration. This is already happening: for each one of the past ten years the West has contributed 50 per cent of Scotland's emigration loss. Its share now is 80 per cent.

In addition, the Group has found that the West appears to be unique among the U.K.'s principal development areas in the reasons for its poor economic performance. Regions with comparable industrial structures, like North England, Wales and Northern Ireland all performed markedly better than West Scotland during the last ten years. Three broad reasons have been advanced for the West's extra difficulties: a poorer productivity record; a more damaging labour relations record; a weaker management capability.

It must be debatable whether the Government will agree with the Group's tentative conclusions that the problems of the West are of such a scale as to demand a rethink of existing regional policy aids. The Industry Act is probably of too recent origin for Ministers to agree to its amendment. What seems more likely is that the West will become one of the major items on the Government's shopping list for EEC regional aid, when that is determined. In the meantime it is painfully clear that the West's problems are distinctly not the "problems of prosperity."



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The North Sea potential

ADRIAN HAMILTON

Over there was a *deus ex machina* in the economic history of Scotland and Britain as Dunlin, Total's 3/14 and the other North Sea discoveries. At a time of energy fears really major potential, and Arab action to cut-back others like Phillips' Maureen East production, the Field, Amoco/Gas Council's Sea, discoveries have Montrose and Shell/Eso's the country not only a Cormorant which, while not of and immensely valuable the first rank, have every energy source but chance of providing worthwhile quantities of oil within the next five to seven years.

At a time of rocketing prices and deteriorating terms of payments, the oil discoveries have been a godsend. The oil companies have been able to provide a production of 2m. barrels per day by the end of the decade, or around 70-80 per cent of predicted U.K. demand at that time. Total discovered gas reserves, while not as well defined, will amount to some 8-10,000,000m. cubic feet, towards half of it associated with oil. This in turn might be sufficient to support a gas production of 1,500-2,000m. cubic feet per day by the end of the decade.

Just how much more remains to be discovered is very much a matter of guesswork, of course. There have been failures (witness Shell/Eso's drilling on the "golden block" 211/21) as well as successes and deductions in exploration from previous experience is always a chancy business. Normally, exploration of any new area tends to follow a pattern of often initial disappointment followed by a period of high success rates as companies begin to gain knowledge of the area and define the best prospects followed finally by a period of very much lower success rates as the more obvious targets are tested and the more difficult "plays" are attempted.

At this time, the North Sea is still in the peak period of success. First drilling of the area east of Dundee has proved up some small finds such as Argyl and Auk. BP has proved up the giant Forties Field in the main part of the northern North Sea basin north-east of Aberdeen. Now most of the interest is concentrated on the gas field at Total's area south-east of the Orkneys, Norwegian Frigg Field, where Occidental has opened up part of this there has a relatively little explored part with its Piper Field, and, above

all, in the East Shetland Basin, the narrow basin extending north along the median line in which the major Brent, Dunlin and Thistle discoveries have been made.

By now, a fair knowledge of the East Shetland Basin is building up. But the prospects are complex and often difficult to determine from seismic information, while drilling is still on the increase as the new generation of semi-submersible rigs capable of working all the year round come into action. Another half dozen major prospects are still to be tested. With the further promising acreage still to be explored around the Piper Field, in the southern neck of the basin near the Beryl Field and in the central part of the northern North Sea basin, exploration of the east coast of Scotland is likely to continue at a high rate for at least another 2-3 years before settling down to a calmer pace.

On top of this, there is the whole West Shetlands Basin—really not so much a basin as a series of continuous fault blocks

—yet to be really touched at all while, further in the future, there is the prospect of acreage being opened up further west out towards Rockall. All in all, it would be surprising if the Scottish waters did not produce at least twice as much oil as already discovered and very possibly three times as much—enough to produce an eventual 4-6m. barrels per day.

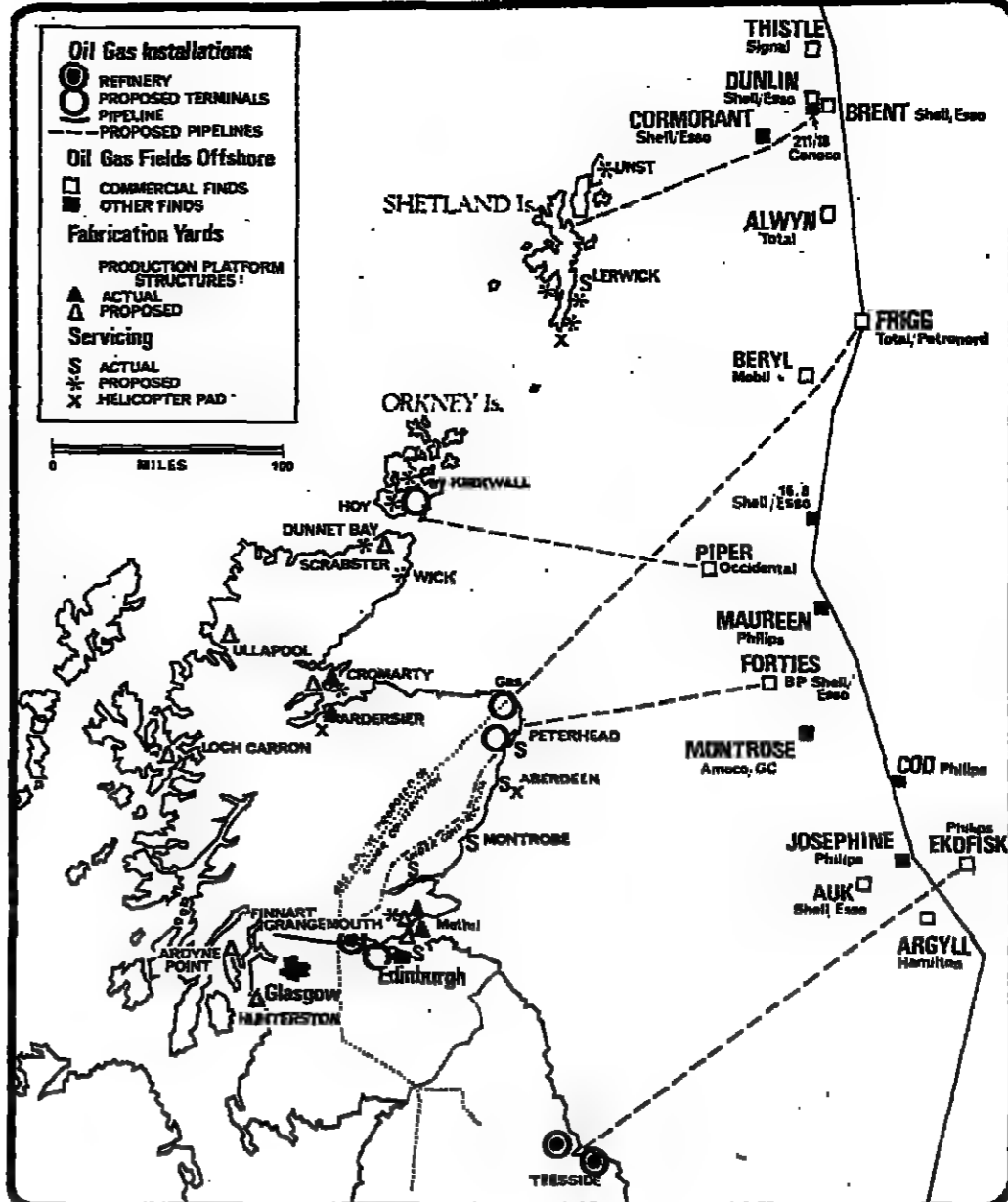
Political problems

This tempest of success has not been without its problems, however. The development stage has been overclouded by technical problems, shortage of materials, delays in construction, problems with planning permission and the whole range of political problems of divisiveness and concern over national participation while successful oil exploitation has always aroused round the story of surprise and success to world. While the problems of drilling in deep water have been largely solved, the problems of producing from deep water in the rough weather come,

conditions of the northern waters are only now beginning to be tackled.

No oil is due to be landed in Scotland until next year and the real build-up will not begin until 1975-76 when, hopefully, the giant Forties and Brent developments will begin to start output along with Beryl and Piper further south. More recent finds are unlikely to achieve substantial production until well on in the decade while any further discoveries made after next year are unlikely to make any strong impact until the 1980s. Questions of laying large-diameter lines in very deep water, of installing gravitational structures on the seabed, of completing satellite wells underwater and of building common carrier pipelines are just beginning to come into the picture.

If the North Sea has been a story of surprise and success to date, it has also been a challenge which could still prove the unexpected and the excitement for many years to come.



Aberdeen problems

By a Correspondent

It is difficult for anybody with only a tenuous knowledge of the city to point out that the solution for the over-heating problems of these labour shortages now afflicting Aberdeen and Easter Ross areas as the Scottish offshore oil boom gathers momentum to be any other than bitter about how these situations developed.

At the same time it is possible to be sceptical about whether additional local or national government powers are necessary to overcome the problems. Even yet they might be soluble by determined, imaginative exercise of existing powers.

The trouble is that too few signs have emerged of any real will to solve them. Probably much is being done of which really no different from the creation of committees and production of reports is only a part. But it is no answer to immediate felt needs to point out that compounded by the assumption that the solution for the over-heating problems of these labour shortages of North-east Scotland and the Inner Moray put a brake on development and divert people elsewhere.

A most illuminating description of the situation in the Aberdeen area was given recently by Professor Donald MacKay of the department of political economy in Aberdeen University. He pointed out that unemployment in Aberdeen city region was now 1.9 per cent, equivalent to a rate of 1.5 per cent in the 1950s or early 1960s. He estimated that the most rapid rate of employment growth had still to come, over the period 1973-77, and pointed out: "If there is no reserve of

unemployed labour only two things can happen—either there will have to be much higher immigration, particularly into the city of Aberdeen, with all that entails in provision of houses, schools and other infrastructure, or there will be severe competition for labour and many local firms will find it impossible to increase employment as they would wish.

Which way the balance will fall, in terms of increased immigration or what we might call 'job destruction', will turn on the ability of the construction industry to provide the necessary houses.

The latest estimates suggest that in Aberdeen city region... something in the region of 3,500 houses a year will be required over a five-year period to meet housing needs... at present the rate of housebuilding is prob-

ably less than one-third of the rate necessary to achieve the target.

The only point I would make is that unless something is done, and quickly, then the housing programme will fall well short of the needs of the city region."

New houses

And Professor MacKay might have been conservative in his estimate of the need. According to North-East Scotland Joint Planning Advisory Committee, 16,500 new houses must be built in Aberdeen city region by the end of 1978—a rate of 5,500 State for Scotland, who has houses a year. And what the special responsibility for oil contractors are up against is a labour market, where, according Chamber of Commerce noted: to a recent survey, 10,000 jobs are going a-begging in Aberdeen and its suburban area.

Against this background, in a memorandum presented to Lord Polwarth, Minister of State for Scotland, who has the special responsibility for oil development in Scotland, Aberdeen construction by the Scottish Special Housing Association has Continued on Next Page

SCOTLAND

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Central Trading Estate, South Street, Whiteinch—close to the Clyde Expressway and three miles from the city centre. One remaining unit of 5,500 sq ft available and further units from 2,500 sq ft proposed.

Helen Street, Govan—three miles to the south of Glasgow city centre, with units from 6,500 sq ft proposed.

Shieldhall—five miles from the city centre on the main road to Glasgow Airport. Units from 20,000 sq ft proposed.

Bishopbriggs—Lowmoss Industrial Estate is five miles to the north of the city centre. Units from 2,500 sq ft proposed.

Clyde Paper Mills, Rutherglen—three miles to the south-east of the city centre of Glasgow. Refurbished and modern units from 2,500 sq ft.

LANARKSHIRE
Airdrie, Brownsburn Road Industrial Estate—close to Glasgow and the M8 Glasgow/Edinburgh Motorway. Units from 2,500 sq ft proposed.

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By a Correspondent

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OTLAND V

Oil: industry slow to react...

by CHRIS BAUR

For roughly two years of exposure to the North Sea operations, a persistent idiom has been heard in Scotland: the pace of reaction to the oil industry is slow. The industry is not being given time to adapt to the demands being made upon it.

Moot point

Whether this altogether bracing philosophy is an explicit aim of Government policy is a moot point; there does now appear, however, to be a recognition by Ministers that there are limits beyond which it would be impolitic to push. The Government has let it be known that the next round of licences may well not be granted this side of 1975. As well as this psychological effort, it is being made to encourage the use of British goods and services by exposing the oil companies' purchasing policies to more open and regular scrutiny.

In the meantime, there is already evidence of an encouraging response to the shore work promoted by existing licences. It is estimated that between 3,000 and 6,000 jobs have been created directly in oil-related activities, with a further 10,000 jobs on the way from known projects. It has been calculated that the major receiving area—the North-east of Scotland—could see some 30,000 jobs generated by oil activity within the next 12

years; and an evaluation by the Scottish Council (Development and Industry) suggests that some 55,000 jobs could be created in Scotland as a whole by the mid-1980s.

A recent report by the Council has also attempted to assess the volume of business for which Scottish industry should be well-placed to bid. It forecasts that total exploration, development and maintenance work in U.K. waters will cost approximately £2,600m. during the next six years. It points to particular opportunities for Scottish shipbuilders in an estimated market for 180 supply vessels (valued at £212m.) and for ten derrick and lay barges (valued at £115m.).

Ship repairers and engineers should also be positioned to win a major share. It says, of inspection, repair and maintenance work, whose value will rise from about £5m. a year now, to almost £61m. by 1979, aggregating about £200m. over the six year period.

There are now two broad areas in which local companies are making efforts to enter oil markets: engineering; and oil-field servicing. For most engineering companies, the prospect of "oil business" now secured is still a small part of total turnover. The Weir group of Glasgow, for instance, has taken orders valued at £15m. from the North Sea, mostly for pumps and valves. This compares with the company's total turnover of £65m. last year, of which £35m. was in its engineering division.

There has been considerable activity in organising off-shore service companies. Seaforth Maritime, launched in May last year by Lyle and Hogarth Ship-

ping of Glasgow with Sidlaw Industries of Dundee, has already committed £8m. to the construction of a service fleet of eight vessels, operating out of its new Aberdeen base. A further investment approaching £6m. is likely to be approved shortly for four more vessels.

Joint venture service companies have been launched by Wier, with Aberdeen's John Wood Group, while Scottish and Newcastle Breweries has gone into partnership with Seaforth Maritime to provide a rig catering service. In Dundee, the Australian company, Thiess Petrosea has joined forces with Dundee Perth and London Shipping to provide a service base, near the Ocean Inchcape, Robb Caledon base, operated under the name Tayside Off-shore.

Teething troubles

Some 14 yards for constructing steel or concrete oil production platforms have been either established or planned. Three are in operation—those of Redpath Dorman Long (North Sea) at Methil, Fife; Highland Fabricators, at Nigg, Ross and Cromarty; Oceanic Contractors (the McDermott group) at Ardersier, Inverness-shire. Another five have been approved in Calthness, the Cromarty Firth, Argyll and Fife.

Two points are worth making here since they illustrate some of the "teething troubles" resulting from fast off-shore development. The first is that both BP and Shell have had to delay platform installations on their Forties, Auk and Brent

fields. The bottlenecks have been caused by delays in some steel supplies and in off-site fabrication. There have been problems with implementing high-grade welding techniques and there have been labour disputes. Labour shortages in the Cromarty Firth are apparently impairing Highland Fabricators' ability to quote for new work. Oceanic Contractors seems to have protected itself with a deliberately slower intake of work, but even in industrial Fife there are shortages of skilled labour, notably welders.

The second anxiety is over the competitive position of construction and engineering companies wishing to break into the market for concrete platforms. The two recent orders placed for platforms in Norway by Shell and Mobil have focused attention on the lack of deep-water Scottish sites available for the designs of concrete structures currently favoured by the oil industry.

This has created twin pressures: there has been a scramble for sites on the environmentally-sensitive West Coast by companies like McAlpine (the only one to have a designated site, but as yet no order), Taylor Woodrow, John Mowlem and Costain. At the same time there has been an incentive to those with approved East Coast sites—Taylor Woodrow, RDL (North Sea) and the Anglo-Dutch ANDOC group in which the Scottish engineers Balfour Beatty are included—to produce concrete designs which could be built in the shallower waters of Fife and the Cromarty Firth.

...and authorities gear up for change

During the past year, the Government's regional policy initiatives and the organisational demands imposed by North Sea oil have combined to produce some fairly significant reforms in the way Scotland is run. Some of these reforms, it is true, have turned out to be more significant as public relations exercises. Nevertheless, in the context of a Scotland that was becoming mesmerised by mounting unemployment and confused, not to say neurotic, about what its attitude to oil should be, even the limited aim of re-exercising some control over public (and industrial) opinion became a vital objective for the Government at about this time last year.

The new regional machinery was introduced in the summer of last year, following the Government's "deep-seated" review of policies affecting the nation's assisted areas. It was a time of considerable anxiety in Scotland. The Upper Clyde crisis was staggering to a conclusion and there was disillusionment about the capacity of existing regional policies to solve Scottish structural problems.

These anxieties were compounded by the pre-1973 Industry Act measures which had given the impression of downgrading regional policy on the list of Government priorities. In the face of Scottish Office paralysis as unemployment went over 140,000 during the first quarter of last year, there was considerable pressure for more local management of an enhanced investment incentives machinery.

Investment aid

The Government's response was to propose the establishment of an Industrial Executive in Whitehall under Christopher Chataway, with job-hunting regional offices and powerful regional boards which would have the delegated authority to evaluate and determine applications for investment aid.

The first of the regional offices to get off the ground was the one in Scotland. Its creation last summer coincided with a dawning appreciation in Scotland of just what was at stake in the North Sea. This focused attention on investment opportunities at home, a process which was aided by the fact that Scotland's industry was not opposed to the former operational grant, which it said was penalising local initiative by being confined to incoming enterprises.

The Government's redesigned regional package, therefore, was heavily wrapped with references to the need for Scottish self-help. The Prime Minister and his colleagues emphasised that the amount of Industry Act finance which would be devoted to Scotland would depend largely on "what was called Planning Department."

Within a fortnight, the Scottish Office was announcing the formation of its fifth department, the Scottish Economic Council for Scotland would be created.

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ment Division and took over some of the responsibilities of the Scottish Development Department—such as the Highland Board, the Scottish Tourist Board, the new towns, transport and electricity.

Mechanical changes

One of its principal functions will be to support Lord Polwarth in his oil co-ordinating role. The Task Force, comprising senior representatives of the Scottish, Trade and Industry, Environment and Employment ministries, has become the effective liaison between Government departments, while the 27-member Oil Development Council, although it has not formally replaced the Standing Conference, has effectively hoped it down into a more manageable instrument of consultation and communication.

Now, undoubtedly, a good deal of this can fairly be described as "window-dressing." On the other hand it seems only fair to register the fact that a number of the mechanical changes made in such haste were in fact important reforms which the Scottish Office would have wanted to institute eventually.

The pressure of new work to service planning applications, notably in the coastal areas, was forcing the Ministry in that direction, anyway.

Two useful consultative documents have been produced, on coastal sites for oil production platforms, and on coastal sites for general oil-related activities. Together these have certainly pushed the Scottish Office's "indicative planning" role further than at any time before and arguably as far as it can be pushed without usurping local authorities' planning duties.

In addition, steps have been taken to speed up the inquiry processes by appointing three full-time reporters. The statistics show that of the 23 applications for oil-related developments which have come before the Secretary of State in the last two years, 18 have been decided in an average time of three and a half months.

None of these changes have fundamentally altered the status of the Scottish Office. That is happening in a more subtle way. In the first place, the urgency attached to developing the North Sea fields, and the national priority being given to encouraging British industrial participation (for instance in the construction of concrete production platforms) has tended to enhance the formal planning powers which the Secretary of State has always wielded.

In the second place, there is evidence—though it is peculiarly difficult to define—that the Scottish Office is already benefiting from a larger input of sophisticated advice from what one might, perhaps, call "more cosmopolitan sources," as major clients find the compelling need to get alongside the Ministry in its planning work.

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SCOTLAND VI

Glasgow and its environs

By a Correspondent

The City of Glasgow during its turbulent history has suffered its share of economic disasters as successive staple industries disappeared in the face of outside influences. It has been written off and re-emerged stronger.

Faced with the extinction of its port industry once before when ships became too big for the shallow waters of the natural river, the merchant adventurers of Glasgow simply gouged out the river. With that same basic problem, the emerging plan for the West of Scotland, looked at in its historical context, is one of moving the city to the deep waters of the Clyde Estuary.

The first faltering steps have been taken to break out of the constricted Clyde valley into the virtually undeveloped land of North and Central Ayrshire.

In reality, the broad concept of West Central Scotland in the 1980s is of a great crescent shaped city stretching 60 miles from central Lanarkshire, through Glasgow and stretching to Ayr, reminiscent of Los Angeles. It has all happened almost by accident, but appears as a masterpiece of strategic planning by any standards.

Largest ships

The keystone is a very small—in international terms—stretch of flat land alongside deep water capable of berthing the largest ships being built or even designed, on the Hunterston Peninsula.

Because there are only 2,200 acres and 900 of these will have to be won from the sea, it is incapable of being developed as an imitation Europort which has forced its planners to think of it in terms of a base point for an ever widening system of secondary sites which will straddle the whole of the West Central Scotland city region.

Interest in Hunterston began in 1967, when Colvilles first put up a plan to build a 3m. ton per year steel plant on the site following the Japanese example. Their plans went into the British Steel Corporation melting pot on nationalisation and emerged as a proposal for a 12m. ton per year plant as an

alternative to developing one of the English steel centres.

The steel plans were followed by interest from Chevron to build an oil refinery on the southern part of the peninsula in 1969 and long-term plans for an ultra deep water general cargo port including an ore terminal and trans-shipment port from the Clyde Port Authority.

The very size of the investment which the BSC plan would have required inevitably gave Hunterston the aura of Scotland's great white hope for the future and turned it into the greatest political football in Scottish history prior to oil.

Until the British Steel Corporation finally balked at the prospect of pouring one-third of their ten year development money into one giant plant in what from a U.K. point of view was the wrong place, Hunterston remained as just another site for a steelworks.

Since then, its integration into a regional concept has come to be accepted. More and more Scots have grudgingly admitted that there was more than a grain of truth in one well-known Scottish industrialist's dismissal of the BSC integrated plant as "the last of the dinosaurs."

After six years, the final decisions on what will go at Hunterston are approaching. The Secretary of State for Scotland, Mr. Gordon Campbell, is virtually committed to a decision by the end of the year.

Before him, Mr. Campbell now has an overall development plan drawn up by the Hunterston Development Company, which would allow integrated reclamation and servicing of the site and ensure that every acre is used to full advantage.

The HDC is a consortium of three of Scotland's largest companies—Lithgow, McAlpine and Stenhouse Holdings—plus the Dutch conglomerate Brédere and the landowners who hold the majority of the land.

Despite fierce opposition from the Labour controlled county

council to a private company "exploiting" a national asset, it now looks as if their concept of the development will get the go-ahead.

The first stage will be an ore terminal and stockyard built on reclaimed land, principally for BSC but with 14m. tons out of 74m. tons capacity, for private users.

Closely following, a start on a new oil refinery will be made—Chevron want to build a 10m. ton per year plant and the Italian ORSI company have proposals for a 24m. ton plant with substantial petrochemical content—unless the advisory committee of the Nuclear Inspectorate rule out a refinery so close to the two nuclear power stations on Hunterston. Both oil companies have undertaken intensive research into this problem for the committee without encountering insuperable objections.

Reduction plant

The importance of refinery use on the site is as a source of tail gas for the new process of direct reduction of steel. BSC are already committed to a direct reduction plant on the site and there is a possibility of a private plant. Direct reduction will form the basis for electric arc steelmaking plant and primary rolling mills. These developments are all likely to be complete by 1978.

It is at this point that the regional concept of Hunterston will begin to bite. Steel will be flowing towards the finishing mills of Glesgarnock, ten miles from Hunterston and to Lanarkshire, petrochemicals will be available for the existing chemical companies concentrated on Irvine and a 3,000 acre site has been earmarked at Stewarton for petrochemicals.

A positive planning decision on the Stewarton site is expected at the same time from

the Secretary of State as on Hunterston and already a number of chemical companies are interested.

Fitting into the pattern of the Hunterston base site and main back-up sites is a system of secondary sites which have grown up over the past two or three years, including major sites based on the two main airports at Prestwick and Abbotsinch.

Unbelievably, even the motorway and rail system appear to have been designed and built specifically for a regional linear city.

West Central Scotland is lacking only one main ingredient which would project it in the space of a decade into a new era... Confidence. Sixty bitter years of decline from its Victorian heyday, delayed only by the demands of the nation's war efforts, have taken a terrible toll of morale.

There are however, signs that politically Glasgow and its region is ready to face the world again. Much depends on the success of local Government reform and in particular the success of the Strathclyde region which contains half the population of Scotland. Its introduction has been and will be racked by insular traditional rivalries. The outer suburbs of Glasgow, outside the official city boundaries, but almost totally dependent on the city, succeeded in remaining outside the limits in the second tier authority, but, strident demands to split the top tier into four parts were squashed.

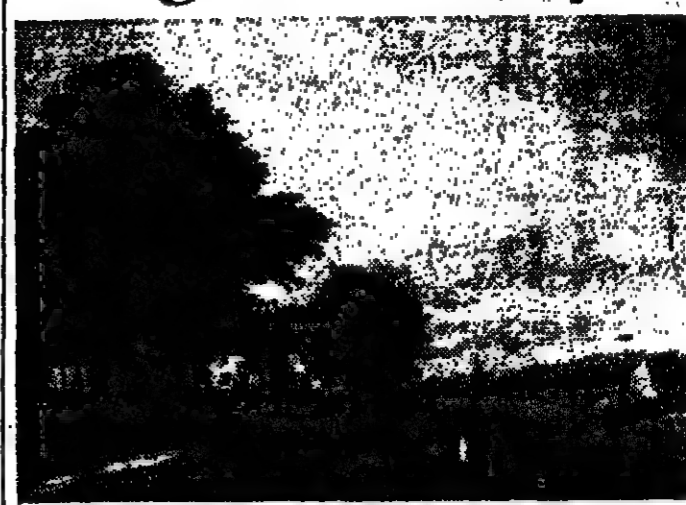
It is the top tier which controls the vital planning function. The regional authority will be presented early next year with an already agreed structural plan of the region which will allow united action to cure the economic ills, outside the political maelstrom inevitable when the power groups of the region are jockeying for position.

Originally, the Labour Government forced the local

authorities in the region to begin looking towards regionalisation just before the last election by forming a land use working party. The Conservative government took this a step forward by superimposing a strong planning team to produce a structural plan, partly because of the growing importance of Hunterston.

It is now largely complete, the potential for political bickering between local authorities has been ironed out and could well provide the unity necessary to carry out the restructuring of the West Central Scotland and it is difficult to see the region failing to make a breakthrough in the next few years.

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Youthful vigour in new towns

By HUGH DAVIDSON

The New Town corporations have been, and continue to be, the means of putting a youthful vigour into the economic body of Scotland. They have brought in much-needed new blood in the form of immigrant industries and with them diversification. They have brought a new exciting dimension not only in modern projects but in architecture and planning. They have sold Scotland to the world by their drive and enterprise. They have accelerated change and created vital growth points and, if not arrested, at least prevented a considerable worsening of Scotland's unemployment.

They are an instrument of Government policy, operating within the functions of the Department of Trade and Industry and thus able to provide Special Development Area incentives. Livingston and Glenrothes may not be in a scheduled Development Area, but, being linked to Glasgow overspill, they are not denied the benefit of these incentives.

Overseas firms

In Scotland's five new towns today more than 500 firms, occupying no less than 13m. square feet of floor space, are providing almost 34,000 jobs. Of the 136 overseas firms now established in Scotland, no fewer than 83 are in the new towns. There are 31 in East Kilbride, which is nine miles from Glasgow and was Scotland's first new town, started in 1947; 20 in Cumbernauld, 14 miles from Glasgow, started in 1956; 17 in Glenrothes, 23 miles from Dundee, started 1948; eight in Irvine, 25 miles from Glasgow, started 1966 and seven in Livingston, 15 miles from Edinburgh, started 1962. The new towns created a

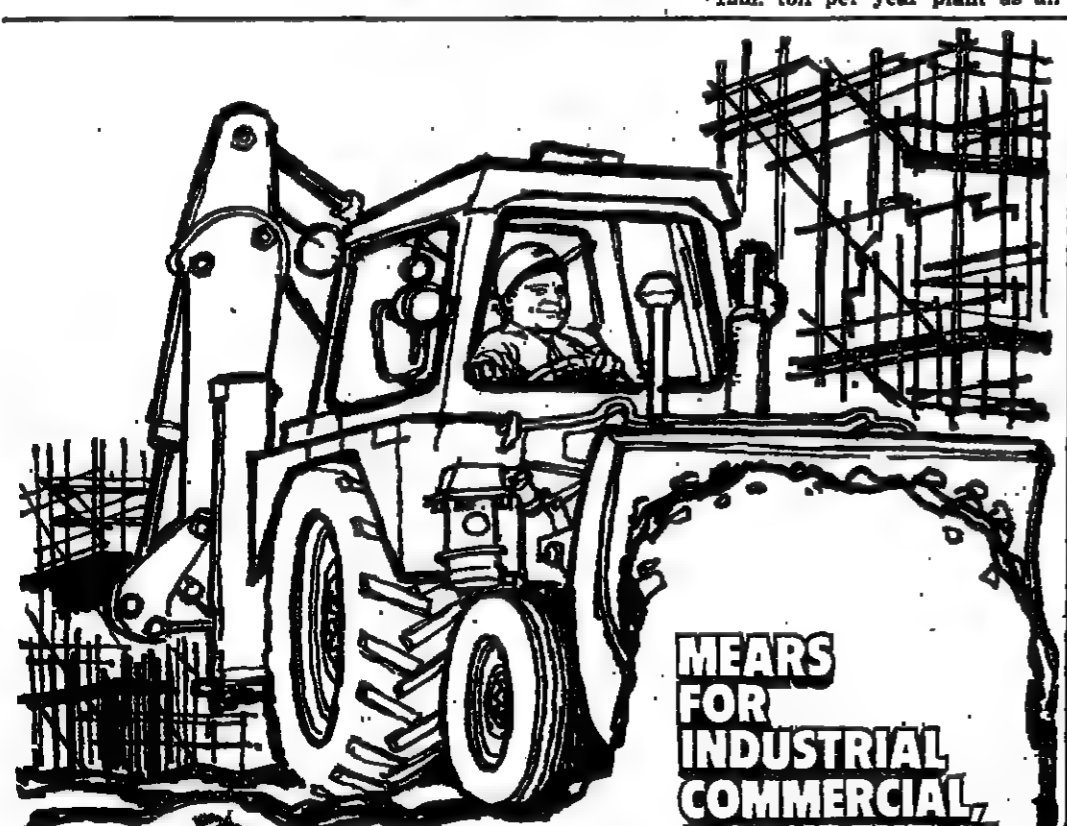
welcome infusion of new industry from the United States, particularly in the form of computers and business machines, providing reasonably high employment, especially among women, but this has been followed by industry from many of the Scandinavian countries, from Europe, India, Australia, and to-day there are representatives of the new towns knocking on doors in the Third World, hoping for a share of the massive investment that is expected to be diverted to Europe.

Of the total 54m. sq. ft. of industrial space allocated in East Kilbride overseas firms occupy 818,000 sq. ft. and provide 2,793 jobs; at Irvine of the 4m. sq. ft. of allocated industrial space nearly 14m. sq. ft. (it should be well over 2m. by July 1977 when an existing firm completes the final phase of its development) is taken by overseas firms providing 2,705 jobs; at Glenrothes of its 21m. sq. ft. of industrial allocated space, overseas firms take up about 800,000 sq. ft. and provide 3,100 jobs; at Livingston of its 2m. sq. ft. of allocated industrial space overseas firms cover 669,542 sq. ft. and provide 1,659 jobs, and at Cumbernauld of its 2.7m. sq. ft. of allocated industrial space, overseas firms take 660,000 sq. ft. and provide 2,000 jobs.

This indicates the powerful effect the new towns have in attracting overseas industry, a factor which compels one to suggest that in the new strategy for industrial growth which must be adopted in the advent of the North Sea boom, one, if not two, new towns should be located in the northern region. Already a plan to create a new town complex with a future population of 80,000 in Easter

Ross has been shelved until next year. Support for such a project is given in the recent report by Professor Ronald Nicoll of the Department of

Continued on next Page



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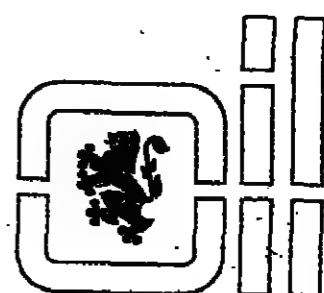
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Three main areas of development

ROY HODSON, Regions Editor

Working in another context, the man was able to concentrate the power of his present to the power of his future. The Arab embargo has already had a major impact upon the Scottish economy. Hence, short-term consideration of such new industrial installations as the provision of work, investment in infrastructure, and the management of the central government in the affairs of the nation need to be taken into account in the oil industry in the quantities as soon as possible.

Scotland's future development seems certain to be based on three main areas: the oil and gas fields; the steel industry; and the high technology industry, which is going to be an increasingly important part of the Scottish economy. Clearly each of these areas interacts with the others to some extent. The world regionalisation would be striving to harmonise the development of all three. But in the oil industry, the need for certain cause and effect.

Offshore waters

The prospects of the oil industry are more than bright. Being built on the west coast are a great of thought and not a little of the industry is being developed at the same time to exploit far and wide. Offshore waters to the west of the coast are being explored thoroughly as early as possible. The oil finds have been made. While there are some doubts about the east coast, the urgency of the situation is clear. The oil industry is at the heart of the Scottish economy. The need for reform is clear. The oil industry is at the heart of the Scottish economy. The need for reform is clear.

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Such are the tensions generated by the need for a strong flow of oil sooner rather than later. Some will argue that such tensions will ultimately be good for Scotland. "We are being shaken out of a national condition of caution and complacency," said one industrialist. Others will argue with equal force that much damage could be done to the long-term balance of a three-legged Scottish economy by the reckless nature of the ride immediately ahead.

Lion's share

Since the Industry Act became law in the summer of 1973 Scotland has done well, increasing its total wealth at a faster rate than some of the other economic regions of Britain. The Department of Trade and Industry reckons that Scotland is getting some 9,000 new jobs through the provision of selective assistance alone. That is more new jobs by the application of that device than any other region, except the Northern Region. Scotland and the Northern Region have so far had the lion's share of all the selective assistance being made available. Each has had roughly one-quarter of the £40m. so far resulting from the Act. Meanwhile a flow of new investment into Scotland continues from the regional development grants—so far some £11m. out of £32m. paid out in Britain since the Act.

Labour shortages have now appeared in the booming oil areas while even in the west central Scotland districts of old and declining industry unemployment is much less worrying than it has been for years. If labour mobility can be encouraged and the necessary new houses, schools, etc., provided in the North East of Scotland there are some who feel that the inflow of new industry may have to be controlled within a year or so from now. From that time on the emphasis would be placed upon using what reserves of labour and facilities Scotland still had available almost solely to promote the rapid exploitation of oil, both directly and by back-up services.

The turnabout in Scotland's economic fortunes has been dramatic. A year ago there was a preoccupation North of the Border with the promised European Regional Fund as a means of salvation. How much would Scotland get? How quickly would money become available? Now there is a recognition that although Britain is quite likely to have around one-quarter of the fund Scotland is likely to have a high proportion of that in comparison with other regions, the impact is likely to be minimal during the early years of the Fund in comparison

with the national effort in Scotland to secure that oil.

With oil development will come a much greater usage of Scotland's other great natural resource: the deep water harbours which are in such short supply in Europe but are so plentiful around Scotland's coasts. A major development on the Clyde in the Hunterston area seems assured. The import of iron ore will in all probability be matched by oil refining, some steel processing, and ancillary industries. Demand for steel to serve the North Sea oil effort has given new encouragement to the entire Scottish steel industry which was feeling dangerously isolated from main markets.

Can Scotland handle the oil boom through the present system of Scottish Office, a regional office of the D.T.I. for industrial aid, and a local government system which at present leaves much to be desired and which can hardly be considered "run in" in its new form before the late 1970s? There is a lobby for more direct control perhaps through one or more development bodies. The idea is not entirely foreign to Scotland where the Highlands and Islands Development Board operates. The argument runs that development of the areas of oil activity could be speeded up if they were managed by a special authority—a "ginger" body. The wartime example of Lord Beaverbrook at the Ministry of Aircraft Production is sometimes cited. And in the west of Scotland, so the argument is extended, a board could give special attention to overcoming the many deficiencies in management, attitudes, and relationships, which have been shown recently to be at or near the core of the Clydeside problem.

Continued from previous page

New towns

Urban and Regional Planning at the University of Strathclyde, which states that in the Moray and Cromarty Firth area the population could double by the end of the century from its present 90,000. Then there must be the claim of the North East Scotland region where, because it has become the focal point of North Sea oil and gas exploitation, a new town could attract oil-related and complementary industries. Balancing service and commercial industries would follow in the wake. New towns—originally conceived to take Glasgow over the spill and protect the surrounding green belt—because of the acute shortage of building sites in the city, Glasgow was bursting at the seams, much of the population in severely cramped housing conditions. It was also vital to concentrate on science-based industries such as electronics and light engineering to take the place of the traditional declining heavy industries, such as shipbuilding, heavy engineering and railway locomotive manufacturing.

Ideal means

It was necessary to change the whole industrial structure and new towns were the ideal means to achieve that end. They provided Scotland with the regeneration necessary, with diversified industry which could be attracted to new housing areas with a modern environment and supporting infrastructure and a readily available pool of labour from Glasgow and other parts of West Central Scotland. Up to March this year 29,900 houses have been occupied in the new towns by families from Glasgow, representing some 80,000 people. East Kilbride and Cumbernauld have each taken 70 per cent of their population from Glasgow in the form of formal overspill and others: Livingston 28 per cent, Glenrothes 11 per cent and Irvine 18 per cent.

The designation of Stonehouse as Scotland's sixth new town, under the aegis of the East Kilbride Development Corporation may or may not be the proper decision. It is certainly in a location geographically suited to industrial development and Mr. George Young, general manager of East Kilbride, who is making his second Japanese investment—searching mission to the Far East describes it as "the finest site for industry to-day." It could exceed East Kilbride in population and industrial growth, but does Glasgow need another new town in its hinterland or the West Central Region for that matter, competing with other new towns? Even admitting its pointers to being a success, it would appear to have been more sensible in the wider economic pattern to have opted for a new town farther north geared to the new industrial evolution in the beckoning prosperity of the North Sea.

One of the most successful of the new towns is Cumbernauld where the demand for factory space has been more than doubled over the last year, 12,864 square metres having been let according to the current annual report. At the moment Cumbernauld is enjoying a boom period. The Secretary of State has given approval for the town to be doubled in size. This has

occurred at a time when the Corporation is rapidly using up the land in the originally designated area, and new sites, particularly for incoming industries, were urgently required. The town, with an annual intake of about 3,000 people, can now easily accommodate and attract a population of 70,000 which, with natural expansion, should grow over the years to approximately 100,000.

It is one of those towns that have overcome the imbalance caused by the generation of manufacturing industry leaving a need for service industry to fill the vacuum. Cumbernauld was able to get the Inland Revenue centre which should bring 1,200 office jobs to the town by the end of 1975. But it is still anxious to attract more commercial jobs. Glenrothes, planned for 70,000 with a population of 31,557 living in 9,000 houses, is anxious to achieve a better balance between employment in manufacturing industry and services. A massive infusion of office employment is required, according to the Corporation, which points out that many of the 3,000 people who travel out of town daily to find employment in offices and other services would be ready to fill appointments in their own town. Like other parts of Scotland, it is seeking a Government office.

The problem has been somewhat solved at East Kilbride by the establishment of the Income Tax Centre 1 and PAYE centre, while at Livingston new town a £2.3m. Government Computer Centre to process unemployment benefits for the whole of Scotland and for much of the North of England, is due to become operational by 1975, while the headquarters of the Scottish Special Housing Association are due to be transferred from Edinburgh to Livingston within the next five years.

It is anticipated that Livingston will have 10,000 jobs by 1975 including 2,000 created by its regional shopping centre and associated major developments. The town, with a planned population of 70,000 by 1985 and 100,000 by the end of the century, compared with 13,569 today, gives employment to 6,000 in commerce and industry.

New growth

But one of the most promising new towns is Irvine in what has been described as the main area of new growth because of the development of the Hunterston peninsula. The first British new town to be developed by the sea, it envisages its population increasing from its present 42,451 to 60,000 by 1976 to 100,000 in 1981 and 120,000 by 1986. It was founded not so much on the concept of getting overspill from Glasgow as being in the centre of one of Scotland's most promising growth areas.

Of the population of the new towns in general, between 86 per cent and 94 per cent were born in Scotland, according to the latest (1971) Census returns, which also revealed that the average of owner-occupied households in the new towns was only 7.5 per cent.

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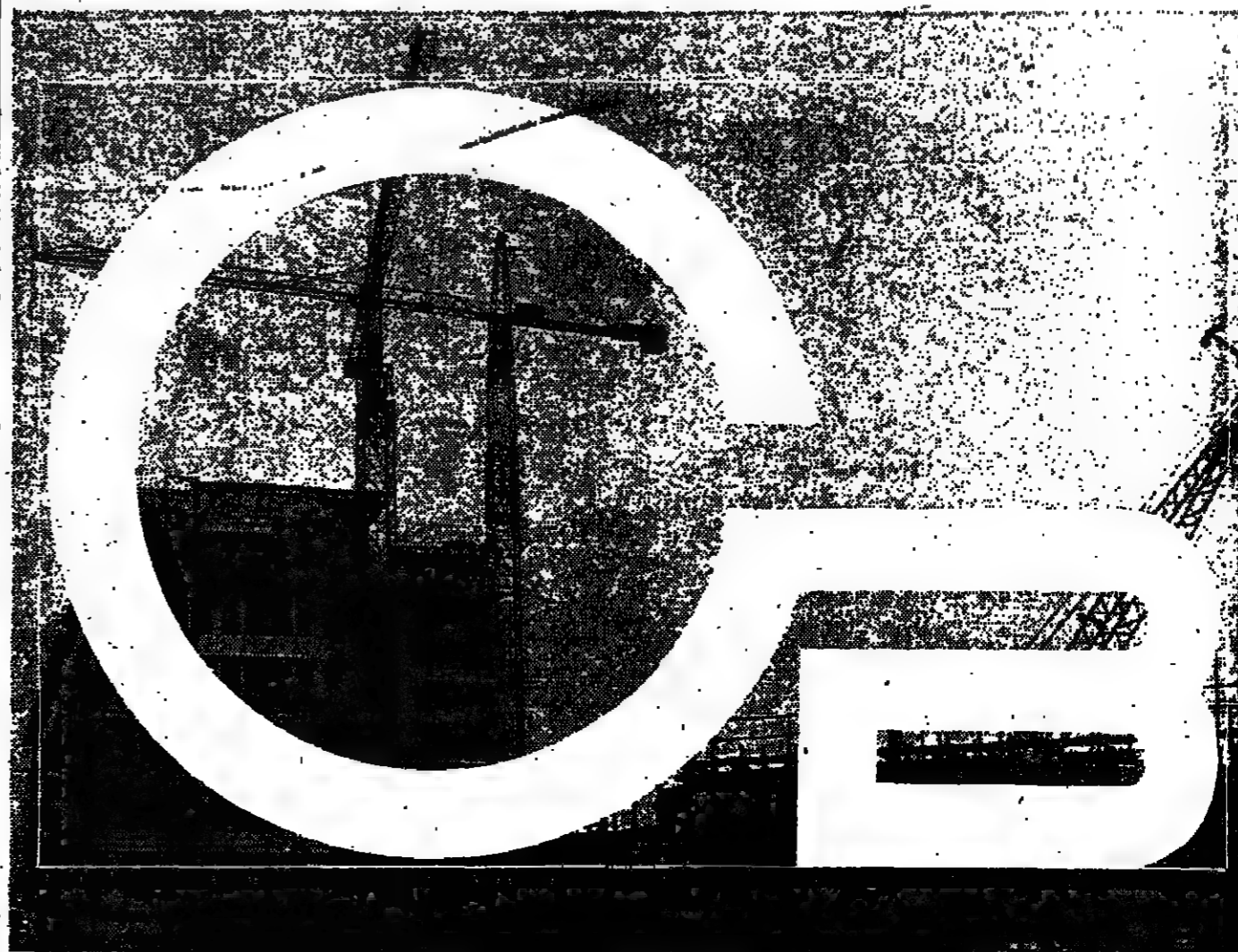
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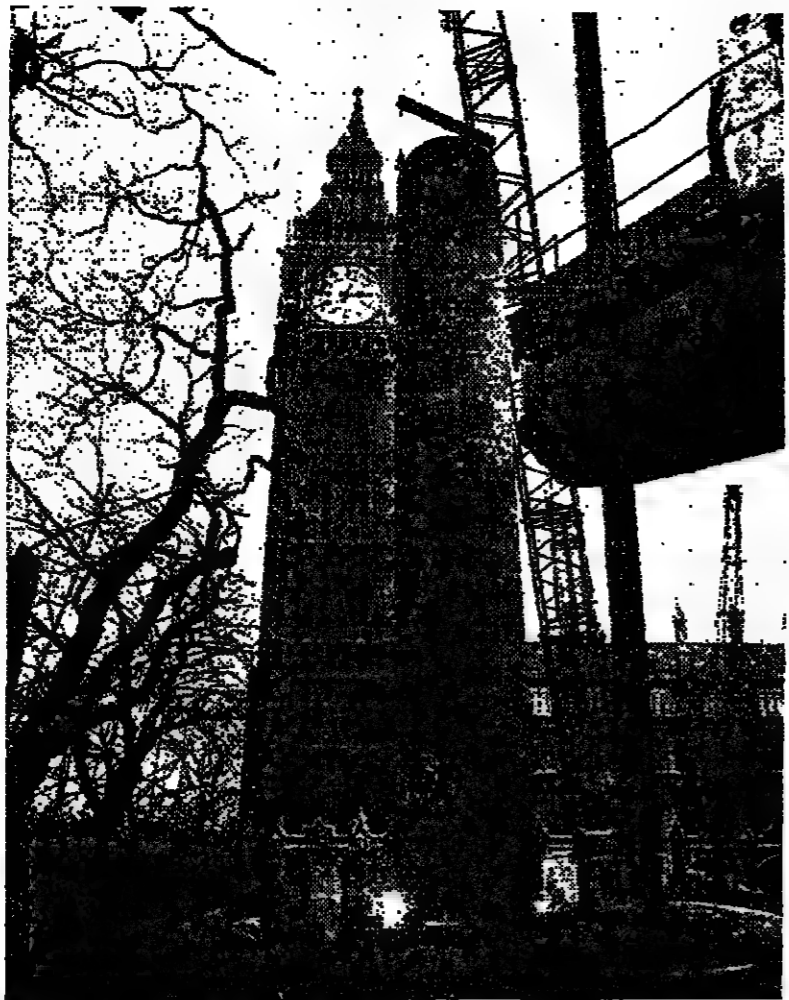


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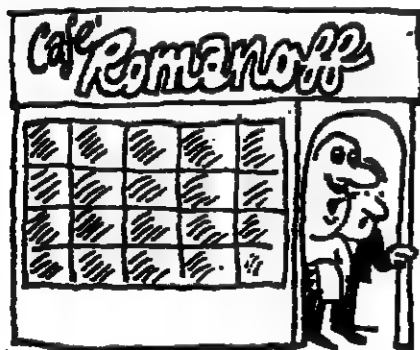
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SCOTLAND VIII

Major shipyards have healthy order books

By JAMES McDONALD, Shipping Correspondent

Scottish shipyards, in general, have fared as well as U.K. shipbuilders overall over the past year and their order books now are in a very healthy state.

There are few, if any, yards which cannot promise full employment for at least the next two years with some having full order books well into 1978. Order books, of course, are not the full story of an industry and the productivity record of British yards generally, with a few exceptions, has been stagnant. Nevertheless, Scottish yards have benefited from a world-wide demand for ships and, with a growing tendency throughout the world during a period of rapid inflation, most of the orders taken over the past year have cost escalation clauses included in the contracts, providing some insurance for yards accepting contracts for delivery of ships up to three years ahead. Fixed-price contracts, in the past, have sounded the death-knell for some yards, including Fairfields, which is now part of the Government-financed Govan Shipbuilders group, and for John Brown on Clydeside, now an American-owned yard specialising in oil rig construction under the name of Marathon.

On the Lower Clyde the Scott Lithgow group is probably the most cohesive large shipbuilding organisation in Scotland and has a very healthy order book. The shipyard complex has 33 ships on order, worth about £170m, and hopes soon to win a major export order which will bring the total to over £200m.

Bulk carriers
Scott Lithgow has full employment for its labour force of 8,900 up to 1977 and would like to expand the force to nearly 10,000. With four super-tankers in the 250,000-280,000 deadweight tons range on the books the yard is hoping to obtain the benefit of series, or standard, ship production. At its Port Glasgow yard also greater output is anticipated with a "run" of Panamax class bulk carriers.

The group, together with most British shipyards, is discussing with the Government its request for aid under the Industry Act. About £20m. is involved and it would include reconstruction projects putting more shipbuilding work under cover. Scott Lithgow, now geared largely to series production of standard ships, is cautious about

tendering for the odd "one-off" vessel which could disrupt the production flow. One of its yards on the lower-Clyde, however, is still available for specialist work in the smaller-size range.

In the upper-Clyde region Govan Shipbuilders also now has a much healthier hue following a spate of orders over the past year. With three of the former yards of Upper Clyde Shipbuilders at Govan, Linthouse and Scotstoun under the Govan banner and a workforce of around 5,000, the yards have orders promising full employment up to early 1978.

Of more importance is the make-up of the order book. Many of the ships to be built are of a standard type allowing full utilisation of series production. The value of the order book is about £80m. Last week, for example, Govan Shipbuilders won a third repeat order for three more 22,500 deadweight ton multi-purpose cargo ships from Kuwait Shipping Company. This brings the total of these standard vessels ordered from Govan by Kuwait Shipping to nine, with an overall value of about £40m. The benefit of standard ship production is obvious since the first of these nine ships will be launched in January next year and delivered in April and the remainder will follow at two-to-three-month intervals.

Also, on the upper Clyde there is Yarrow Shipbuilders—formerly a reluctant member of UCS and now an independent survivor. The yard has a healthy order book and an optimistic view about its future as a specialist warship builder. With its current shipbuilding work force of about 4,500 the yard has sufficient work in hand to provide full employment throughout 1974 and well into 1975. There are no signs of redundancies up to the end of 1975, says Sir Eric Yarrow, the chairman.

Yarrow prospects are considerably improved by the acceptance by the Government of the Booz-Allen report's recommendation earlier this year that there should be three specialist warship builders—Vickers, Yarrow and Vespene Thornycroft and the announcement, that future warship orders for the Royal Navy will go increasingly to those yards.

The current value of the Yarrow order book is about £100m, including two Leander-class frigates for Chile, five Type-21 frigates—one already launched and the second to be launched next month—and two

support ships for Iran. This order book is expected to be boosted very soon by a Ministry of Defence order for the first Type-22 frigate. As a prototype vessel this may raise the total value of contracts in hand to £120m or more.

In addition the company is actively seeking overseas work. It has prepared tenders for the Greek Government's request for Type-21 frigates but is also, Sir Eric stresses, competing in many other foreign markets. The international warship building field is intensely competitive, with French, German, Italian, Spanish, Dutch and U.S. builders in the market. Nevertheless, about 50 per cent. of Yarrow's order book is for export but its recognition as a specialist warship builder by the Ministry of Defence offers greater stability in the future in terms of basic work.

Yarrow also has benefited considerably from its all-weather covered building berth in terms both of productivity and cost. At present three of the Type-21 frigates on order are being built inside the covered berth and two outside.

On the East Coast of Scotland the main yards—the Robb Caledon Shipbuilders group and Hall Russell—have facilities to build only smaller ships but here also the order books are healthy.

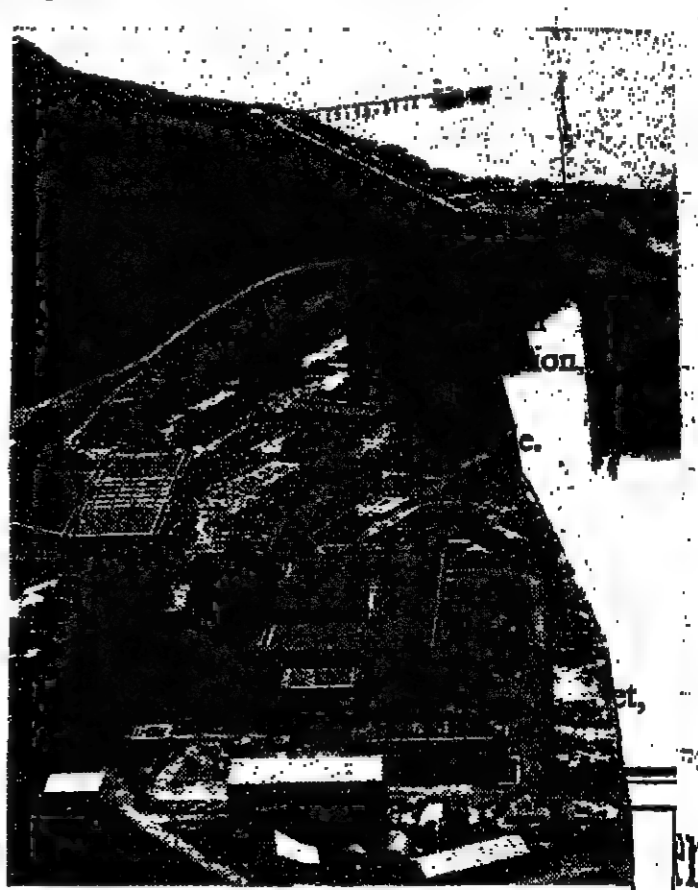
Robb Caledon, with yards at Leith and Dundee, is deliberately not specialising in the production of standard ships

Strong opinions

Hall Russell, in Aberdeen, build ships up to 12,000 dead weight tons and also is well placed for orders. Last July it won a contract, worth about £3m, from the P & O group for a 3,500-ton drive-off passenger, car and livestock ferry. The contract was won in competition with other British and European shipyards and followed another P & O order towards the end of last year worth £1.4m. for a 750-ton drive-off ferry.

Mr. John Wright, chairman and managing director of Hall Russell, has strong opinions about the Government's role in protecting the shipbuilding industry. Earlier this year he argued that the Government should consider providing economic risk cover to shipbuilders to cover long-term contracts against a rise in above national "norm".

He pointed out that this had been done in Russia for many years "to the benefit of French shipbuilders who have been able to quote fixed prices without having to look in a crystal ball to decide how much to add in inflation."



Long term energy prospects

By a Correspondent

At a time when crisis seems to be following crisis in the power industry—and international circumstances have created a general uncertainty about the future—Scotland can take some comfort from important developments due in the next few years to brighten her own energy outlook.

Electricity generation will be boosted next year by the commissioning of the second nuclear power station at Hunterston—about at least a year after originally programmed because of difficulties with thermal insulation to protect the concrete reactor vessels from the hot coolant gas. The extensive modification in design and manufacture, along with the slower than planned installation progress, have raised the cost of the project to more than £100m.

Latest estimates put at just under £100m. the final cost of gas and nuclear energy have the other major station being built for the South of Scotland Electricity Board. It is at Inverkip, some miles north of Hunterston on the Firth of Clyde coast, and is an oil-fired unit. It is due to enter service in 1975.

Following completion in recent years of new stations at Longannet, Cockenzie and Kincardine on the Firth of Forth, the new Hunterston and Inverkip units will largely provide the additional supplies needed to meet expected growth in Scottish demands up to about 1977.

The 300 megawatt pumped storage station being built by the North of Scotland Hydro Electric Board at Foyers will further supplement supplies

during that period before another major scheme being undertaken by the North Board will be brought into operation to cover growing demand in subsequent years.

The development which is due to start boosting supplies in 1978 is the oil gas-fired station being built on the North-East coast of Scotland at Peterhead at a cost of £100m. Its output should be sufficient to cover additional Scottish requirements for power into the 1980s.

The decision to build the Peterhead station was taken by the North of Scotland Board earlier this year after Government policy caused them to abandon meantime their plans for a nuclear station at Stake Ness, near Banff. This project was affected by the deferring of a decision on the type of nuclear reactor to be used for future power plants in the U.K.

Despite the inroads which oil, gas and nuclear energy have been making in recent years, the bulk of Scotland's generating plant still, of course, depends on coal as fuel. As well as major units like Longannet which is capable of using more than a third of the entire output of Scottish mines, coal provides fuel for most of the older and smaller power plants throughout the central belt which still contribute a major proportion of power needs.

Earlier this year the South of Scotland Electricity Board concluded an agreement with the National Coal Board to increase the expected coal burn in power stations during 1973-74 from 7m. to 8m. tons. There is provision to extend the agreement to extend the supply

The next major power station to come on stream—the SSEB's £90m. Hunterston "B" advanced gas-cooled reactor, due to be commissioned next summer after a year's delay.

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Controversy over future of steel still rages

Correspondent

Scotland, and her most populated West Central in particular, so greatly on heavy manufacturing industry, it is under the steel-making which should be a subject of controversy. Therefore the British Steel Corporation's commitment to a £400m. investment during the next to modernise the Scottish steel industry has not appeased the. Still there are demands for better use being of Scotland's steel-potential to ensure the industry remains a key in the Scottish economy. The leading watchdog policy is the Scottish Union Congress whose have been involved in after round of talks and tons over the last 18 in a bid to safeguard interests of the 25,000 directly employed in taking and the interests of others in Scotland who indirectly on the industry's state.

One principal why bodies like the could hardly regard a ten-year programme with enthusiasm as Mr. Walker, the Secretary of for Trade and Industry, produced it as a bold plan. The eyes of Scottish trade in particular the failed to impress them of its omission of any commitment to a major steel development at stone, the Clyde peninsula industrial potential with deep-water is acknowledged as rare. Despite a vigorous over previous years to this area as a green for a modern steel Scotland lost out to Tees the contest for the one of this type which into the Corporation's plan. Decision meant that in a context planning attention away from the coastal site and towards the inland area. The Ravenscraig which built-up in overall Scottish steel as one of the five heart throughout Britain to 4.5m. tons a year by the early 1980s. It is proposed that the additional steel produced at Ravenscraig should be used partly to load more fully the existing hot strip mill on the



The first continuous casting machine at Ravenscraig steelworks. The equipment is part of BSC's £67m. investment which will double Ravenscraig's liquid steel output.

In Lanarkshire, was already in site as well as supply other Scottish mills. It is somewhat ironic, however, that the planned build up in production at Ravenscraig—which for the medium term at least has matched the limelight from the idea of steel-making at Hunterston—should turn out to be threatened by delay because of more immediate events involving the Ayrshire peninsula.

Additional furnace

Among new plant to be installed is an open handling and blending unit, a sinter unit, a third basic oxygen converter and a second continuous casting plant. With additional blast furnace modification, it is thought that the development at this one site will cream off upwards of a quarter of the total money BSC propose spending in Scotland over the next decade.

The additional output from Ravenscraig will go towards providing the steel industry with a production which is scheduled to increase from around 3.7m. tons a year to 4.5m. tons a year by the early 1980s. It is proposed that the additional steel produced at Ravenscraig should be used partly to load more fully the existing hot strip mill on the

planning consent and approval of Parliamentary Commissioners who examined the marine aspects.

BSC had hoped to be in a position by now to begin the site work at Hunterston to have the terminal, costing an estimated £30m., in operation by the time the Ravenscraig complex was working up to its new capacity. But difficulties have arisen in the negotiations between the Corporation and the Hunterston Development Company, the private consortium who have options to buy the land needed for the onshore stock yard and other essential parts of the development.

Public inquiry

Unless behind-the-scenes talks which are continuing can resolve the differences over control of the area, a public inquiry into the compulsory purchase of the ground is likely. This means a delay of at least several months before it could be known whether the scheme can proceed and, whatever the outcome, the schedule for expanding Ravenscraig would inevitably be affected.

The availability of a new import terminal will also have a bearing on the progress of other major parts of BSC's Scottish strategy. These include the progressive development of a new electric arc plant of up to 1m. tons capacity which is expected to be sited at Halladale works.

Indeed the White Paper on BSC's ten-year strategy published last February pointed out that this development, estimated to cost about £55m., would probably be supported at some stage by a direct reduction plant producing pelletised iron adjacent to the Hunterston terminal.

Other main items in the Corporation's Scottish programme are substantial investment at the Clydebank tube works and modernisation of plate mill facilities at the Dalzell works. And to ensure that Scotland has an up-to-date and balanced steel industry to attract engineering and other steel based enterprises, there is a promise of the introduction of some new high-grade speciality products.

The modernisation scheme, involving as it does the closure of an open-hearth furnaces in Scotland by the end of the decade, will also mean the loss of at least 8,500 jobs in the industry over the same period.

This will reduce the total labour force to between 18,000 and 19,000 in Scotland at the end of the period of the plan. The social consequences of

the programme was one of the reasons which prompted the Corporation in May to appoint Mr. Andrew Young, the director of the Scottish, Shelton and East Moors group of the General Steels Division, as executive responsible for co-ordinating contacts in Scotland between Government departments, MPA, local authorities, trade unions, and other organisations with a direct interest in the steel industry.

The anticipated loss in steel jobs in West Central Scotland over the next few years could result in one of the first direct examples of aid to Scotland from Britain's membership of the European Community. Men made redundant could qualify for retraining benefits under present regulations and it has already been suggested that once retrained such workers could form the nucleus of a labour force for the British Leyland Motor Corporation's proposed new plant which West Central Scotland, albeit against fierce competition from many other regions, is trying vigorously to attract.

Although the likely pattern of steel development up to the end of this decade has largely been determined, serious thought is already being given to what might happen in the era beyond—a subject which inevitably again raises the question of Hunterston.

It is now generally accepted if the peninsula is to be developed as a major steel site by BSC this would not begin to happen until the 1980s. There is, at the same time, strong resentment against the idea of land being frozen for a decade or more while BSC make up its mind on the matter when its many other projects, such as refineries and operations associated with the North Sea oil discoveries, have been proposed for more immediate development.

Gas supplies

The Scottish Office, who are the ultimate planning authority deciding what projects should go ahead at Hunterston, have already made clear their opinion that the development of steel would represent the best possible use of the site in the national interest and it is significant that a few months ago they asked the refining companies competing for space there to rethink their plans to see if it would be possible to provide supplies of gas at competitive prices which would make a modern steel works in the area a viable proposition.

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INUED FROM PREVIOUS PAGE

Energy

last up to three years, dine power station to run on cement clearly pleased ers but as Mr. Michael y, their Scottish leader their annual conference, able supply of gas which will must be doubts on the of the Scottish industry t such demands. alled for a campaign to the industry by deve- new units and, if neces- re-open collieries that previously been closed. said that it would also be try to attract sufficient er into the industry to these resources as well guarding some of the mines in danger of unless the labour force enlarged.

to the problems, produc- at Scottish mines is g new peaks with four Longannet. Seafeld, Glen and Monktonhall— ssing the 1m. ton annual level for the first time.

Price for coal

ricity authorities have at they could take more an they expected the mines would be able to but they have also had- unding qualms about the- ney have to pay for the . Because they believe ce for coal in Scotland ur, more attention is given to nuclear power, even North Sea gas in Fergus in Aberdeenshire, a ies which would arise if pipeline will transport supplies are faced with a sudden ceased dependence on where the gas will be fed into the existing grid to be taken to the more interesting Carlisle and Preston. The first ble developments is due to convert the Kincar-

Gas mixed with the crude oil will have to be separated in a special unit being built adjacent to the BP complex before the oil is fed into the refinery. The gas could easily be piped directly across the Forth to the Kincardine station, providing high-level political sanction was given to the move and a suitable price could be agreed.

North Sea gas will feature more prominently in the Scottish energy scene over the next three years as a result of the £170m. plan announced by the British Gas Corporation in September to develop the Frigg Field which can eventually provide up to 40 per cent. of Britain's present gas requirements. As well as enabling the North East of Scotland, the Moray Firth and the South West of Scotland to receive natural gas supplies earlier than previously planned, the scheme will make a sizeable contribution to the national network.

From the point where the gas will come ashore near St. Fergus in Aberdeenshire, a pipeline will transport supplies to Armadale in West Lothian where the gas will be fed into the existing grid to be taken to the more interesting Carlisle and Preston. The first ble developments is due to convert the Kincar-

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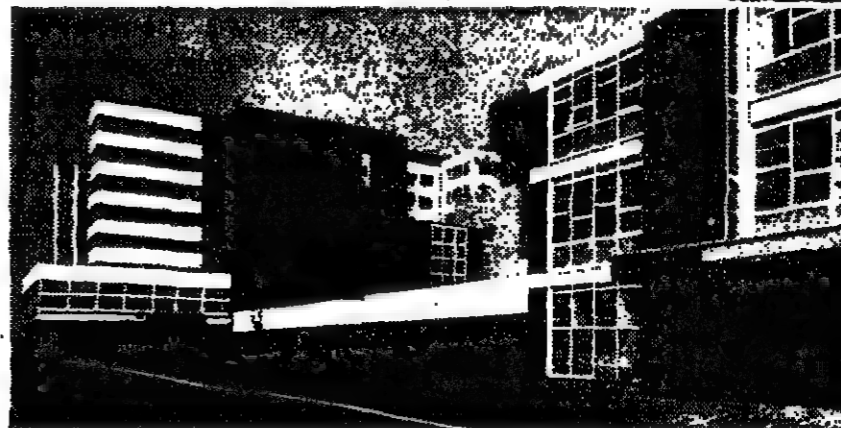
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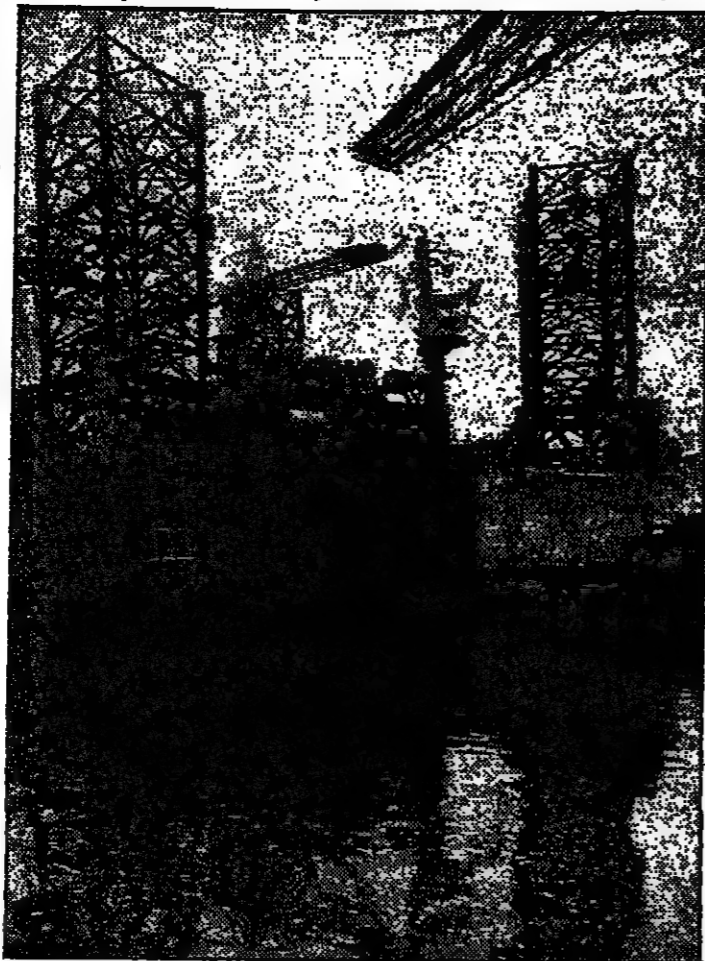
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SCOTLAND X

Agriculture sweeps away the cobwebs

By ARTHUR ANDERSON

Scottish agriculture is undergoing a quiet but purposeful metamorphosis. After a shaky start, bound up with uncertainty about its future, the industry is now beginning to sweep away the cobwebs and equip itself as a competitive force within the enlarged European Economic Community. In essence, Scottish farmers have come to terms with their position as an important, if relatively remote, source of quality food production within a vastly expanded consumer market.

Significantly, they have become conscious that if they are to overcome the problems associated with distance from their market place, they must quickly adopt new and aggressive marketing techniques designed to establish a role as competitive producers. To that end, they have set to work with vigour, the most important result of which so far has been the birth of an ambitious scheme to raise money on a voluntary levy basis for the promotion, both at home and on the Continent, of Scotch beef and lamb. Traditionally, levying is a dirty word to the farmer, a dislike in no small way fostered by his protection by the Exchequer from the rough and tumble of normal commercial marketing procedures.

Voluntary levy

Conscious, however, that that protection is on the way out to a greater or lesser degree, Scots farmers last month came out solidly in favour of a voluntary levy at the rate of 1p for every sheep and 5p for every head of cattle sold through auction markets or deadweight centres. Such a sum would raise an estimated £250,000 a year which, farmers believe, would be sufficient to promote the "quality" tag of Scotch livestock produce in Europe. With the solid weight of 20,000 farmers behind it, the levy scheme could swing into operation early in the New Year in time to catch the luxury Easter market for lamb.

Unfortunately, however, Scots farmers have yet to win over

the approval of auctioneers without whose full support such a scheme would become inoperable. Under the terms of the Scottish scheme, the first of its kind in the annals of British agricultural marketing, farmers would pay their levy on an "opt out" basis, with farmers who did not approve of the scheme—and indications are that they are few and far between—having to instruct their local auctioneer specifically not to deduct the levy.

The auctioneers allege, however, that such a method is administratively impractical, preferring instead an "opt in" system whereby farmers instruct the auctioneer to deduct the levy. Arguably, Scottish auctioneers—often acknowledged as the last bastions of conservatism within the industry—are being somewhat less than far-sighted. Better promotion and marketing would inevitably lead to increased producer returns which in turn would see greater production of livestock, principally beef for which there is an increasing world demand. And after the producers themselves, auctioneers would be the first to benefit from increased throughput.

But if Scotland's national voluntary levy scheme has been seen to stumble, if only temporarily, at the last fence, other sectors of the industry are quietly forging ahead with new developments and marketing initiatives of their own.

This is especially true in the arable belt along Scotland's eastern seaboard. While cereal growers continue to increase their acreage year by year on an overall basis, a growing number are beginning to concentrate instead on field vegetables.

While a world shortage of protein has pushed cereal prices to record levels, husbandry-conscious Scottish farmers are unwilling to commit all their eggs to one basket, preferring instead modest increases in cereal acreages and a growing reliance on field vegetables as annual break crops to avoid the risk of cereal disease build-up and a breakdown in the basic soil structure.

In terms of collective co-operation and marketing initiative, two Scottish schemes have already achieved considerable success in the output and sale of vegetables and are likely to provide the trigger for other developments in the same field.

Freezing plant

One is the East Lothian and Borders Association of Growers, a farmers' co-operative, which has invested £400,000 in the future of vegetables on a farm scale by building a processing and freezing plant at Eyemouth, Berwickshire. The group's 64 farmer members are all within a 35-mile radius of the factory and this year have grown 800 acres of peas, 200 acres of brussels sprouts and 70 acres of cauliflower. The target acreage for next year is 2,500 acres of which between 1,400 and 1,800 acres will be peas, the lynch-pin of any vegetable processing venture.

Output from the factory is aimed at the home freezer, catering and chain store trade. Marketing the farmers' production will be ELBA-Tweed Valley Food, a company set up by the co-operative in conjunction with Tweed Valley Foods, a local concern. So far ahead was the basic thinking of these local farmers in terms of marketing initiatives that their application to FEOPA, the EEC farm fund which allocates agricultural grants within the Nine, for grant aid to defray the £400,000 investment, was the first to be received in Brussels from any U.K. body.

Although £400,000 has been sunk into the Eyemouth processing plant, total cash commitment by the group could double that figure once individual farmers' investment in expensive pea harvesting equipment has been taken into account.

Further north, Fife Growers is another group which has met with an almost heady success. Fife Growers' formation follows the previous success of a small group of local farmers who two years ago established Fife Pea Growers in an attempt to introduce a new crop into their arable rotations following the closure of Scotland's only beet sugar factory at Cupar, Fife.

In their first year, the 18 grower members of the pea group marketed the output from 400 acres. Since then a potato group and a vegetable group have started and this year 60 farmers confidently predict marketing a total of 12,500 tons of product from 4,000 acres. Turnover will exceed £1.5m. and the extra output envisaged for next year will push the value of sales to more than £3m.

Producers' commitment covers carrots, sprouts, turnips, cauliflowers, spinach and calabrese (broccoli) as well as peas and potatoes. Processing is handled on behalf of the growers by the Union Cold Storage Company which set up a £1.5m. plant in Fife at Glenrothes two years ago on the understanding that vegetable production from local farmers would increase and thereby justify the firm's capital outlay.

Marketing is undertaken on the farmers' behalf by frozen food distributors in London. Prices are agreed prior to harvesting and the arrangement has so far worked to producers' benefit. Furthermore, the Fife farmers have no written con-

tracts with their processor deny that such an arrangement puts them in a vulnerable position, maintaining instead the relationship is one based mutual trust and understanding with give and take on both a preferable to the formality rigidity of written contracts.

The farmers believe that they are ever forced to down their operations, it is because production becomes uneconomic or their margin dries up. The possibilities, however, are infinitely preferable to being subjected to the whims of boardroom decisions which have all too often broken growers' groups operating a strict contract system with major processor.

Quite apart from the benefits of increased returns, vegetable production for participating farmers, the spin to the local communities, result of these initiatives has been considerable in terms new employment, new bust for haulage concerns and beliefs in the long-term future of areas where rural depopulation has for long been a problem.

But if Common Market has provided the trigger for and much needed entry within the ranks of Scottish farming industry, member of the European trading has created some deep-seated anxieties as well, especially the livestock sector—response for more than 50 per cent Scotland's national farm output, £200m. a year—witnessing costs of feed are pressing leaving beef producers dairy farmers little or no return on their investment.

Rising costs

While they generally accept that the huge rise in feed costs is due to a world wide situation rather than the re of EEC entry, they point to alarm that while feed costs roughly the same for all 1 stock men in the Common Market, returns are especially in the dairy sector vital part of the farm economy in Scotland's south and southwest region—where income from milk sales is 5p a gallon less than that received by Continental counterparts.

For this reason, the EEC milk-to-beef incentive scheme has already begun to make almost artificial impact Scottish agriculture. Desires to prevent a surplus of dairy produce in Europe as a whole, a situation which has not been a U.K. problem—and concentrate production on towards beef, many Scots producers are having a hard look at the scheme in justifiable belief that it could well receive cash in Common Market coffers making the kind of switch their basic enterprises in current economics in the industry would now tend to be on the understanding that they think of anyway.

Basically, Scottish livestock farmers believe that the traditional period is working against them rather than for them, with the benefit of hindsight they maintain that the situation at present would be much better had there been no transitional arrangements. Had that been the case, the shock of the pain less prolonged.

Fisheries achieve a new record

By a Correspondent

Scottish fisheries are enjoying quayside. Everywhere, there is unprecedented prosperity in all sections—white fish, shell fish and herring. A record breaking grand total of £43m. was achieved for 1972, and, with earnings this year averaging £1m. a week, the industry is well on its way to a new best ever figure by the end of next month. The inshore fleet is doing so well that it did not even protest when government auditors, after examining the returns, decided on another subsidy cut.

Boatbuilders are kept busy with orders for new craft from wealthy skipper-owners anxious to have the latest in design and equipment, and even teenage crew members go home with earnings of £50-£100 a week. While the volume of fish landed in England and Wales declined by 35 per cent. during 1972, Scotland's share of total landings over the same period rose steadily and now accounts for over 45 per cent. of the British catch. The determination of the Scots to maintain this upward trend is reflected in their willingness to invest in new boats in the 70-85 feet class with more of the newcomers steel-built in contrast to the traditional timber hull.

In this respect the relatively new Campbelltown shipyard, building exclusively with steel, has had spectacular success. The sixth vessel of this class has just been launched for a Fraserburgh skipper-owner and another seven, varying in size from 75-85 ft. are on order. Although officially designed as part of the inshore fleet, boats in this category are wide-ranging and virtually as tough as the "pocket" trawlers being built in Aberdeen for North Sea and west coast operations. Unlike the Aberdeen trawlers, which concentrate on white fish, these powerful "inshore" boats being built at Campbelltown and elsewhere are multi-purpose and can be quickly adapted for herring fishing.

With all the prime fish space, and time enough to landed at Scottish ports, now commanding high prices, it is surprising to find such an atmosphere of anxiety on the part of the fishers. The fear that it may prove but fleeting prosperity. Restrictions at Iceland and around the Faroes are causing great concern in the deep sea trawling section, and inshore fishermen worry about the future of the 12-mile U.K. territorial limit now that they are in the Common Market.

The waters on which they depend for their £5m. a year herring and £8m. shell fish catches, plus a considerable amount of white fish, are safe from foreign exploitation until the existing agreement expires in 1982. What happens after that is the vital question for men about to invest £100,000, or even £200,000, in a new boat, and so far there have been no categorical assurances of a maintenance of the status quo—just soothing words that their interests will be safeguarded. Fishing has become so ruthlessly efficient with modern electronic aids—a single cod shows up on the echo-sounder at a depth of 1,800 feet—that any intensification of effort around the Scottish coast could quickly reduce stocks to an uneconomic level.

Coveted herrings

An additional cause for apprehension is the thought that some of the EEC members, having made a poor attempt at conserving their own supplies, would be unlikely to hold back if given access to the hitherto U.K. protected zone. This applies particularly to the coveted herring shoals in the North and South Minches—now about the last important winter fishery in Western Europe.

During the next three months carrier ships will be running with supplies from Mull, Ullapool and Stornoway to Continental ports to assist merchants suffering from the North Sea scarcity. The inshore men have, however, a breathing space, and time enough to mount a campaign to protect their livelihood. The events of 1871 when vigorous protest

Continued on next page

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Demand for oil capital will increase

NDY McELROY

years before the first oil well was drilled in Pennsylvania James Young of Livingston in Scotland was refining shale oil at operation that was, by producing 19m. gallons of year and employing 100 people.

were against the con- of the industry, but the discovery of oil-shore Scots have realised that once again in the oil and in a very major pet this time the invest- ed is many times that ed by Young and the financial institutions, low to spot a sound out, are playing an im- part in supplying both and advice to this industry.

trialists south of the have generally only a a of the Scottish finan- tutions and what they are often than not they tried merely as an off- of English banks or mt bodies. To a degree accurate: yet there are at differences. nd has three commer- mks, formed by an ation of ten. Of these est, the Bank of Scot- was founded in 1695 y to finance industrial nent. Barclay's Bank a 35 per cent stake in k of Scotland. Largest g way is the Royal Bank and, with capital and of about £70m. and 600 s. Sixteen per cent of al is owned by Lloyd's. est of the three is the ale bank, incorporating th of Scotland Bank and wholly-owned subsidiary Highland Bank.

Gross deposits

April of this year the eposits and notes out- of the three banks almost £3,000m., while s were approximately At the same time nts represented 9.5 per gross deposits repre- a sharp fall from 22.8 it at the beginning of ide. ically the Scottish are always had a much investment/deposit ratio. English banks, usually the southern figure, the post-war era this reserve of securities the banks to finance al development without money outside the

ective of the compara- fluence of the Scottish rial banks, however, and for capital generated shore exploration and



Reclamation work at Peterhead harbour for the first Custom-built oil rig service base on the east coast. It will be fully operational in the spring of next year.

exploitation is greater than can be accommodated by these sources alone. Shell has estimated that the cost of drilling an exploratory well is, on average £1m., ex- penditure being naturally higher in deeper and more dangerous northern waters. Semi-submersible rigs of the type used in discovering the Brent and Ank fields, cost about £3.5m., while the latest generation of exploration plat- forms, with a displacement of 20,000 tons and self-powered, cost about £10m. each.

When it comes to the perma- nent production platforms the costs rocket beyond even these substantial sums, to an esti- mated £40m. Yet there remains the problem of getting the oil on shore: cost of an under- water pipeline is roughly the same as that of a four-lane motorway, mile for mile. Obviously, these cannot be hard and fast figures, but only represent averages. However, it is reasonable to assume that because of the difficulties of operating in northern waters and because successful strikes off the Scottish coast require either a long pipeline or tanker transport, it is reasonable to assume that the average cost of northern wells will be higher than that for more southerly locations.

Estimates of total expenditure

very widely. Shell's figures of banks — their resources are £250m. for locating and siting out a field to produce 250,000 barrels per day. On the basis of this estimate, the oil community formed partly of several U.K. large firms per year by 1980 implies a total outlay of about £1,500m., or over £150m. per year. No less reputable experts have made other assessments, ranging from £2,000m. to £5,000m.

Even taking the Shell figures, however, and assuming that, conservatively, a third of the total will be spent in Scotland, the outlay during the next ten years will be almost £10 per head for every man, woman and child in the country.

Technology export

More than this will be spent on the industrial infrastruc- ture and transport systems needed for services and oil trans- port. George T. Murray, the eminent marketing consultant, suggests in his recent analysis "Scotland—The New Future," that the final figure might go as high as £750m. per year. He also makes the very important point that export of technology and equipment to other countries with offshore oil deposits could lead to the establishment of a substantial capital-hungry industry.

Although the Scottish banks have shown themselves eager to invest in the oil industry — £30m. of Shell's £360m. borrow- ing for the Forties field came from the two major Scottish

land has increased its capital by about 25 per cent, indicating its confidence in the long-term future of the industry and in a good rate of return, which one of its executives puts at between 15 and 18 per cent. Less dramatically, the Clydes- dale Bank is setting up addi- tional branches in the Nigg Bay

and Cromarty Firth areas. Significantly, and possibly as a result, there is currently a rumour that one of the English clearing banks is about to begin direct operations in the oil areas of Scotland, though it seems unlikely that if any did so they would feel inclined to adhere to geographical limita- tions.

Merchant banks

Financially, Scotland is in a ferment, and when figures for the current year are produced they should, according to some forecasts, show a massive in- crease in the volume of foreign investment coming in through the merchant banks.

Outlets for this money, taking the traditional industries, are massively overshadowed by the oil industry. And since most experts forecast that the future prosperity of Scotland will depend almost entirely on the industry and the other activities it generates, this is hardly surprising.

Prosperity based on oil should persist well into the 21st century and by that time, according to experts, the year- ing effect of the money that is now being poured into the country should have changed its industrial pattern out of all recognition. It will also have changed the financial picture to no less a degree.

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Fisheries

resulted in a 12-mile limit when they were at first threatened with EEC partners on their doorstep, showed what could be accomplished by determined opposition and the lesson will not be forgotten.

Within the ranks of the Scottish Trawler Federation the Iceland-Faroe problem is of much greater urgency and casts a deep shadow over existing prosperity. No Granton trawlers fish at Iceland and only about 10 per cent of the Aberdeen fleet go there. While the restrictions will affect landings, it was a setback Aberdeen could have suffered but the Faroese proposals are a body-blow.

Aberdeen's rise to the status of Britain's third biggest fishing port is due in large measure to the off-take at the Fargies. The fishing grounds there are as important to Scottish trawlers as are those at Iceland to the Humber ports, and the Scottish Trawler Federation take the view that the Government should have put up as big a fight on their behalf as they did for English interests over the Icelandic issue. Instead they claim a draft agreement on catch limitation was drawn up without any consultation with the Federation.

Their case for drastic revision of the agreement is embodied in a five-page memorandum recently sent off to Mr. Alick Buchanan-Smith, Scottish Under-Secretary with responsibility for fisheries. In it they point out that about 70 per cent of the U.K. catch from Faroese grounds is taken by Scottish trawlers, and that the proposed catch-limitation scheme could mean a loss of at least £1m. a year for them. The U.K. cod and haddock catch would be restricted to 18,000 tons a year, and large stretches of valuable fishing ground closed at different times of the year.

The STF say they would reluctantly accept the 18,000-ton restriction, but not along with closure of certain fishing grounds, because on this basis they would not be able to reach their quota and might not catch very much more than 12,000 tons. This is because of weather conditions. When gales make trawling impossible around some of the Faroe Islands it is usually possible to head for more sheltered areas to continue working. Loss of this flexibility would lead to idleness and uneconomic trips as the closed grounds might be the only ones on which they could trawl. It is maintained that the fishing can only be viable if all areas remain open.

The Federation's views are supported by the Trawler Officers' Guild and Mr. Buchanan-Smith has been warned that there will be "substantial difficulties" if the proposals are carried out in their present form. This is the biggest single problem facing the trawler fleet to-day but by no means the only one. There is also concern over the effect that North Sea gas and oil exploration is going to have—at sea and ashore. Trawler owners complain of lack of consultation with the oil industry on the siting of pipeline routes and platforms, the danger of pollution, and sea-bed debris.

Onshore, the oil boom has created such a demand for labour in and around Aberdeen that there is difficulty in crewing all the trawlers, and fish-processing factories are handicapped by lack of staff. With oil exploration only in its infancy, it is obvious that difficulties are more likely to increase than lessen. So, from restricted to 18,000 tons a year, all quarters, influences are at work which can only make fish scarcer and dearer for the British housewife.



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SCOTLAND XII

Boom reflected in property

By PETER RIDDELL, Property Correspondent

The revival in the Scottish economy has also been reflected in increased activity in most sections of the property market. The number and scale of lettings has risen sharply, notably on the industrial side, and there has also been a steady, and in some cases, steep increase in rents. The last year has also highlighted the influence of a number of relatively new, and special factors, such as the increased pressure for the conservation of certain areas of Edinburgh and Glasgow and, most significantly, the considerable possibilities raised by the exploration in the North Sea.

A clear indication of improvement is Glasgow, where demand for office space has increased sharply. According to one estimate, about 300,000 square feet has been let in the city so far this year compared with about 200,000 square feet at this stage of 1972. While this total consists of the usual range of Government and official tenants, there

has been a notable increase in the pipeline planning restrictions in the central area—particularly the understandable desire to preserve the district around St. Andrew's and Charlotte Squares, Queen Street and Princes Street—has led to an emphasis on small renovation schemes, which anyway appeal to the large number of professional users in the city. There is also an increased interest in projects outside the centre. Rent levels are higher than in Glasgow with figures of around £2.50 a square foot being mentioned recently for good quality new space in the centre and one agent even talking about £3 for a small unit.

High rents

This underlines the importance of location with most companies still preferring space in the traditional parts of the central area. At the same time there is still considerable scope for renewal as many of the existing office buildings were constructed before 1914 and are now obsolete. In addition, there is also increasing interest in the use of air-conditioning which is likely to add to the pressures for high rents already created by the rises in building costs of the last year.

In any event, partly as a response to this cost factor and partly because of the increased demand office rents have also been rising at a much higher rate than in previous years. While a figure of around £1.40 a square foot was normal a year ago—with up to £1.75 a square foot being achieved for top-quality premises—rents of over £2 a square foot have now been agreed for the first time. And it seems likely that any remaining blockage to rents of over £2 will disappear in the next few months.

The situation is somewhat different in Edinburgh which does not suffer from these problems of redevelopment and where there is not nearly so much empty space. While there is a fair amount of office space

overaken, at least for the time being, by the depressed state of the private market because of the mortgage crisis.

As one housing expert pointed out in a reference to the Government's plans: "Nowhere in the White Paper is there any sign of a realisation that if customers are absent because mortgages are not available or house prices too costly that all the hopes of an expanding programme are doomed to failure."

The statistics show that Scotland's slum position is generally worse than most other areas of Britain. The 190,000 houses which are below the tolerable standard amount to ten per cent of the total housing stock. These are houses which lack the most basic amenities including the exclusive use of a lavatory a sink, or a hot and cold water supply. It has been argued, however, that the tolerable standard should be raised and if this were done thousands of additional houses would come within a new slum category.

Generally, it is accepted that Scotland no longer has a national housing problem in terms of availability and standards, though there are particular areas, such as the West of Scotland, where the situation is particularly bad. Glasgow, alone, has 75,000 houses below the tolerable standard but there are concentrations of slums in other cities and large towns.

Slum clearance

The Scottish Office claims that very substantial progress has already been made in dealing with houses below the minimum standard, with extensive slum clearance in the first settling out the Government's housing policy for the 1970s and the second, outlining proposals for dealing with Scotland's older houses. The Government's aims are basically the building of more new public sector houses wherever they are needed, a more intensive assault on the remaining slums, the encouragement of home ownership, with more new private to houses, and home and environmental improvements.

While some critics of the Government's proposals believe that their proposals are designed more as a psychological exercise rather than a practical strategy, the Government look on their concentrated effort to clear slums housing as one of the most urgent and of concern among Labour MPs. Important single tasks in Scotland's housing. They are hopeful, too, that builders will respond to their proposals for more new private homes—a months of this year compared plea which has been somewhat

provided. While these incentives may help development areas nearer London there have been few signs so far of companies taking advantage of them to move to Scotland, despite the improvement in communications. Indeed it can be argued that such incentives involve spreading the jam too thinly and what is needed to help an area like Scotland is selective assistance concentrated on certain suitable office centres with the aim of improving the infrastructure, especially telecommunications links, with aid also directed to the actual individual moving house.

Industrial sector

But perhaps the most significant sign of the strength of the Scottish economy at present has been the increased activity in the industrial sector, especially in the area around Glasgow. There is ample evidence throughout the main industrial areas that units which come on the market are being snapped up immediately and the buoyancy affects both the public sector, with the Scottish Industrial Estates Corporation undertaking a big expansion this year, and the private developer.

The Lyon Group, for example, which claims to be the largest private industrial group in Scotland, expects that in the year to April 1974 it will have allocated three times the average total of the last five years. So far in the financial year nearly 750,000 square feet of factory or warehouse space has been let or sold, including both new and refurbished buildings, and the group reckons the annual total could be 1.5m. square feet on the basis of this trend. This compares with a total of about 600,000 square feet last year and an average of 500,000 square feet in the last five years. Most of Lyon's estates are in the Glasgow area and while these increases partly reflect increased demand they are also the result of a general

expansion onto the east coast in the last year with estates at Edinburgh, Dundee and Aberdeen.

This experience is supported by other private developers and the other main result of the increased buoyancy has been a rise in industrial rents. Naturally the figures vary depending on what part of Scotland is involved, but in the inner Glasgow area, for example, several agents say that rents for new small industrial units are about 85p a square foot compared with 70p or less a year ago. Outside the inner area, rents are in the 60p to 70/75p range compared with 50p to 55p in the autumn of 1972. These figures are necessarily fairly general but give an idea of the extent of the growth after a stable period.

The most spectacular growth has, however, occurred outside the central industrial belt on the north-east coast in Aberdeen where the North Sea oil and gas activities have made a significant impact. The problem here has been that with relatively few buildings so far.

immediately available anywhere on the market in the coastal area has been let or sold quickly. With this strong demand industrial rents around 80p a square foot have been achieved and even a square foot for warehouses in the harbour.

The main problem is a shortage of suitable sites and high prices are being asked. Some industrial land in Aberdeen area has been sold for £45,000 an acre. There is a lot of development in the pipeline both in this area and on the office side with a current figure of well over a square foot has been quoted for the very little space available. The question whether the long term demand will be sufficient to absorb increase in office supply but real test here will come about a year to 18 months' time. The effect of the North expansion has been restricted to this coastal area but both in Scotland and elsewhere in Scotland there is no sign of any general increase in the amount of activity so far.

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Serious housing problems

By a Correspondent

An amazingly high proportion of tenement slums and a major imbalance between public sector and private accommodation have combined to make Scotland's housing problem one of the most serious in western Europe. The policies of successive governments have failed to make any real impact and the majority of slums have remained sub-standard for more than half a century.

The situation, however, has been improving in the last two years and the Government are now making a determined effort to transform the Scottish housing scene, the main accent being put on an all-out drive to rid the country of 190,000 sub-standard houses within the next five years. It is estimated that the exercise could cost the Government and local authorities about £1,000m.

Government action

Three important steps have been taken by the Conservative Government in the housing field since they came into power, all having particular significance for Scotland. First, there was the controversial Housing (Financial Provisions) (Scotland) Act aimed at increasing, in stages, the level of local authority rents. Some believe that low rents have been a major contributory factor towards the imbalance of housing over the years. The Act also made it compulsory for local authorities to operate fairly generous rent rebate schemes as part of their plans to redirect subsidies from bricks and mortar to people.

Then, this year, there have been two White Papers, the first setting out the Government's housing policy for the 1970s and the second, outlining proposals for dealing with Scotland's older houses. The Government's aims are basically the building of more new public sector houses wherever they are needed, a more intensive assault on the remaining slums, the encouragement of home ownership, with more new private to houses, and home and environmental improvements.

While some critics of the Government's proposals believe that their proposals are designed more as a psychological exercise rather than a practical strategy, the Government look on their concentrated effort to clear slums housing as one of the most urgent and of concern among Labour MPs. Important single tasks in Scotland's housing. They are hopeful, too, that builders will respond to their proposals for more new private homes—a months of this year compared plea which has been somewhat

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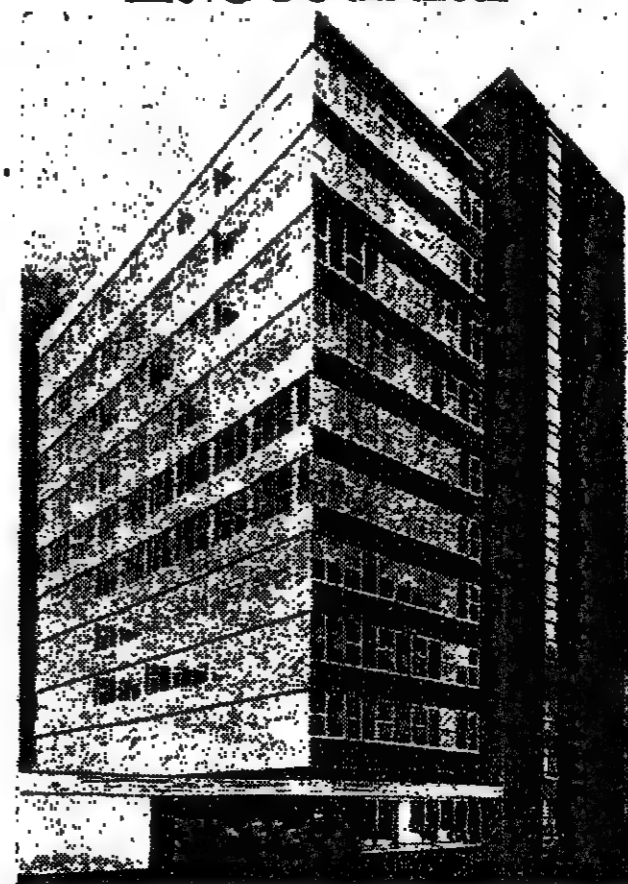
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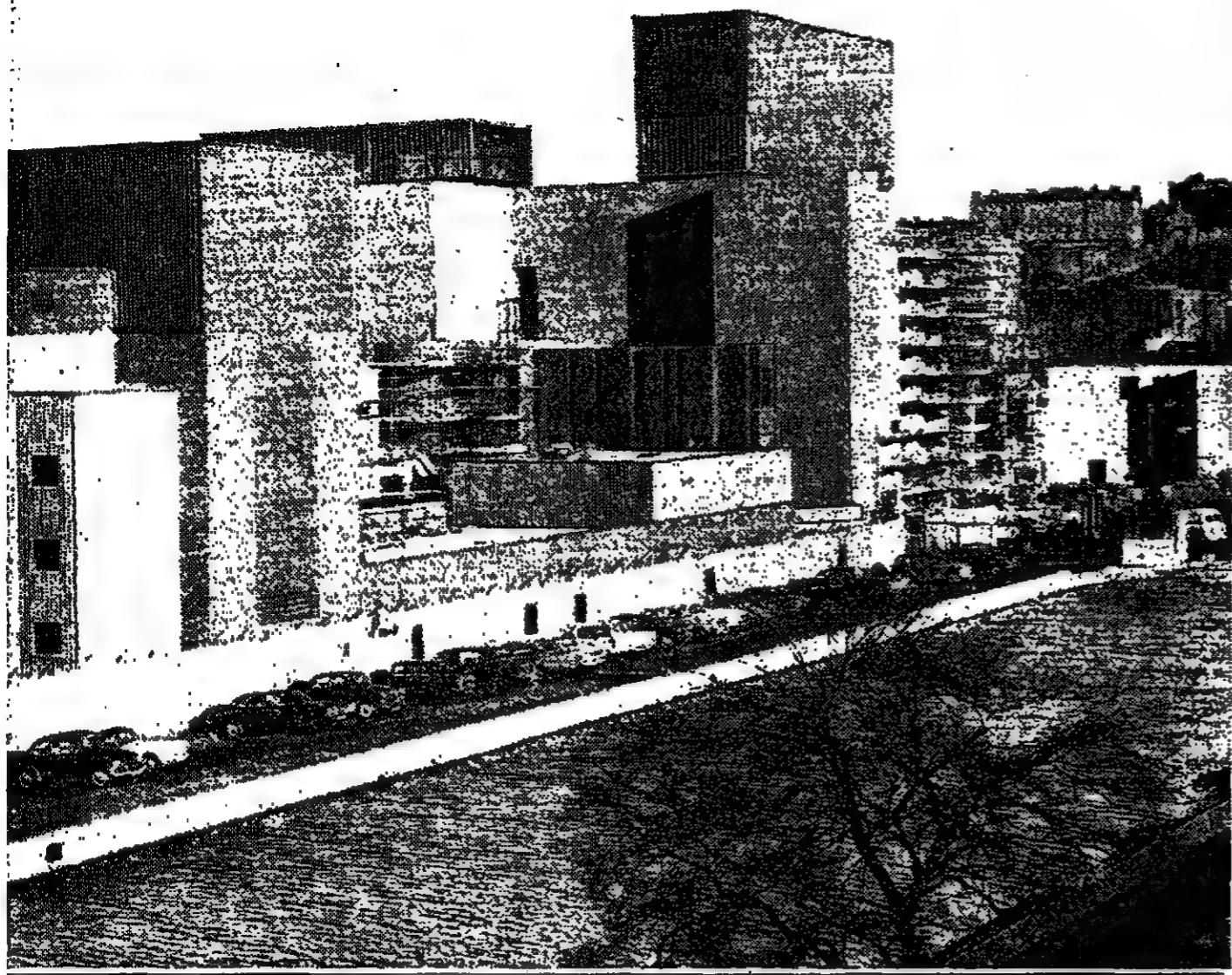
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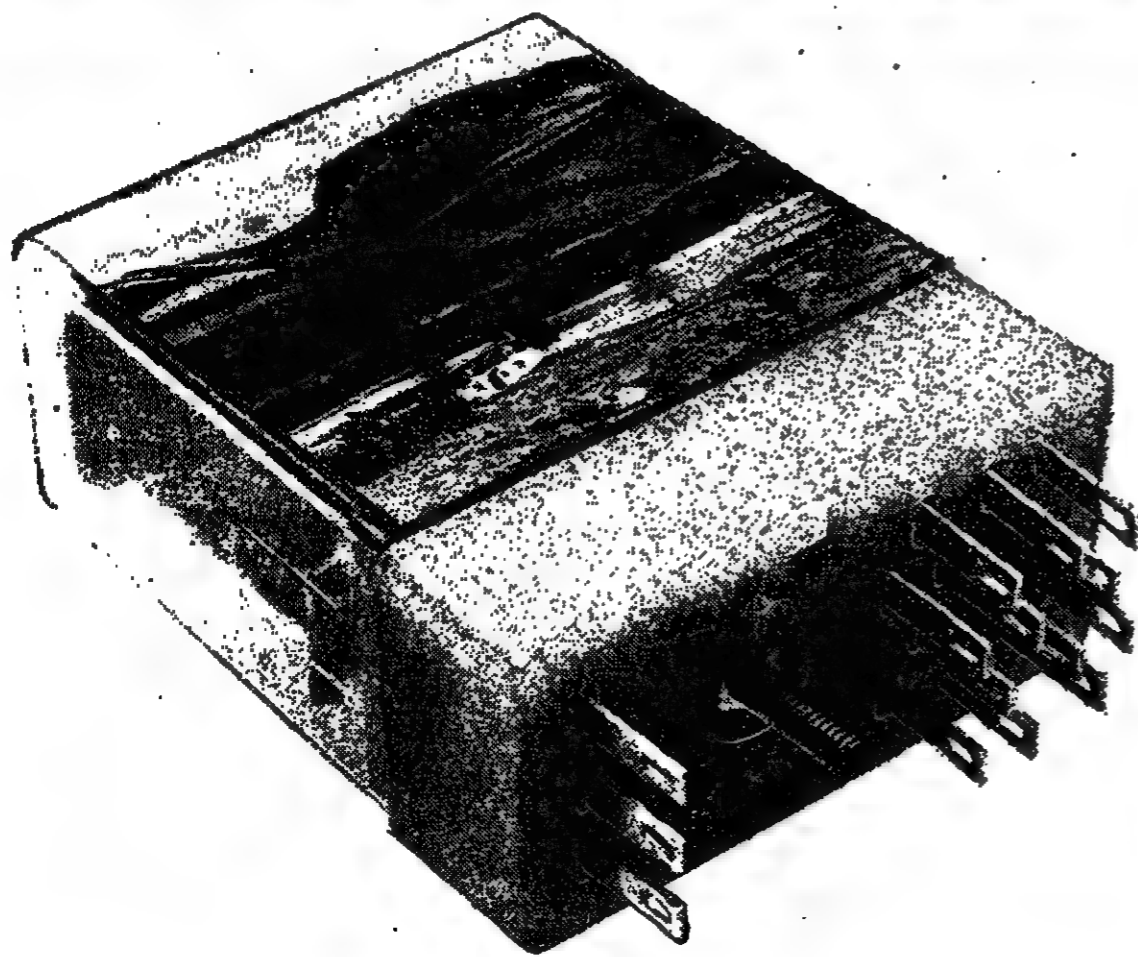
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SCOTLAND XIV

Electronics needs a wider base

By CHRISTOPHER LORENZ

For several years the Scottish electronics industry has aspired to the title of "a little Palo Alto" — referring to the peninsula south of San Francisco which has bred many of the most exciting inventions and growth companies in the world of electronics. After nearly two decades of rapid growth, electronics is now one of the largest manufacturing industries in Scotland, ahead of steel, shipbuilding and mining. But too many of its products are designed in England or the U.S. and too many of its companies are remotely-controlled from far away for it to qualify for the Palo Alto title. There are still too few companies with research and development facilities for the Scottish electronics industry to be very much more than part of the "branch factory economy" which has recently been the cause of much critical comment in Scotland.

Notable exception

The most notable exception to this general picture is Ferranti, to whom must go much of the credit for the rapid development of electronics in Scotland. Under Mr. (now Sir) John Toothill the English-based company's Scottish operation was given a relatively free hand soon after World War II as it moved from gun-sights into electronics. Together with Dr. William Robertson at the Scottish Council (Development and Industry), Sir John developed a strategy for the introduction of high technology to Scotland through the attraction of American electronics subsidiaries.

In the early stages Ferranti acted as a mother hen to the industry, providing a strong research and development team as well as training facilities for other firms' employees, and subcontracting work for Scottish industry. The programme of attracting U.S. companies quickly took root with the arrival of Honeywell and IBM, for whom the main attractions were Scotland's suitability com-

pared with the U.S. as a base for the U.K. and Commonwealth markets, together with the relatively cheap cost of adaptable labour. More recently, the existence of a large electronics industry in Scotland has provided a strong pull for other multinationals. Compared with these three factors, regional incentives have been seen by most companies as little more than a bonus though some would have gone elsewhere without them.

During the 1960s the size of the Scottish electronics industry snowballed more than twice as fast as the whole U.K. electronics industry. In 1960 it employed about 9,000 people, 3.5 per cent of the U.K. industry's labour force, while by 1969 it was almost 29,000 strong, 8 per cent of the British total. There are now over 100 companies in Scotland either in electronics or closely associated with it, an increase of more than 30 in five years, and they employ over 43,000 people. Over half the electronics labour force is female.

From 1971 until early this year the industry went through an extremely rough patch as a result of the combined effects of the world-wide computer slump and a revolution in the business machines industry, which also had to cope with the aftermath of a short-lived boom caused by decimatisation. Apart from its direct results, the former had severe side-effects, such as the closure of a brand-new GEC microelectronics factory at Glenrothes, while the latter prompted NCR to halve its Dundee labour force as it switched from electro-mechanical products to less labour-intensive electronic ones.

In the last few months the pace has picked up as existing companies went over to expansion again and as a number of new entries were welcomed to the area, chief among them Motorola, the American company, which has just opened a micro-electronics plant at East Kilbride and plans a duplicate facility for 1975. A number of other well-known multinationals are knocking at the door.

In these circumstances the crucial factor for the industry's future is no longer one of quantity, but of quality. Until recently it was excessively dependent on the fortunes of the international computer industry. Now, with the arrival of manufacturers of consumer electronics and integrated circuits (which no longer have computers as their only major market), it is more broadly-based. The problem is its lack of depth.

New technology

The situation is best described by Mr. George McGregor, of the Scottish Council: "There is an over-emphasis on production facilities and a disturbing lack of research and development. It is from this that new technology grows to keep a discipline alive and active. . . . When physical distance separates the R and D facilities and the production unit, there is an inevitable delay. It is not uncommon for new technology introduced, for example, in the U.S., to take a full year to reach the Scottish plant of the same company." In some sectors this introduces a lag in local know-how and a gap in the career structure open to Scots graduates which can often be closed only by migration.

This perpetuation of the branch economy has been a disappointment to many of those involved in attracting electronics to Scotland. Including Honeywell and NCR—which modifies American designs on products such as computer memory systems—less than ten of the 100 plus companies in the industry have a research and development effort. Together with difficulties in raising finance, this has severely limited the spin-off in terms of new companies headquartered in Scotland. The most successful area has been sub-contracting—there are now six local makers of printed-circuit boards, for example—but many of these are just as dependent on trans-Atlantic decisions as the customers they serve.

The completely integrated indigenous company is a rarer animal. The two most oft-quoted examples are MESL (Microwave and Electronic Systems) and Nuclear Enterprises, which were founded in the 1960s and have since prospered. Both have a high ratio of graduates to their overall labour force and fully satisfy the Palo Alto standard of taking advanced technology right through from the drawing board to manufacture.

There are signs of a trend towards more examples of this sort of company, but the future of the Scottish electronics industry as a self-generating, relatively independent entity along the lines of Palo Alto will only be assured if they become more than just outstanding exceptions to the general rule of branch factory economy. Since only the most ardent Scottish Nationalist could hope to make his country as im-

portant a base of indigenous electronics companies as the U.S., much will depend on the willingness of multi-nationals to turn their Scottish operations into centres of excellence, part of their product range.

Ferranti, though not exact a multi-national, has done this in concentrating its portland avionics business, Edinburgh and Dundee, with 20 per cent. complement of graduates and charter engineers. Much more recent a group of former GEC-Marc microelectronics engineers persuaded General Instruments diversified American company to back them in a new venture at Glenrothes, and they run one of the few integrated microcircuit operations in the U.K. outside G. Plessey and Ferranti, whose facilities are all in England.

The most successful example of what the Scottish Council, in particular, we like to see is Hewlett-Packard, which moved to just north of Edinburgh from Bedford in 1961 and has since established itself as a highly-successful design and manufacturer of communications instrumentation. H-P South Queensferry designs a third of the equipment produced and exports a proportion to the U.S., the heart of its parent company.

The rapid growth of the European electronics market prompts a number of American companies to split up their design and development effort along something like Hewlett-Packard pattern. Long as political pressure from the individual European governments does not fragment installations along national lines, the American parents will be Scotland on their list of possible European headquarters.

Many advantages

Scotland has many advantages over competing areas in Germany and Italy, for example, ranging from a common language to a close-knit work of universities (an important factor for a company pinning at the frontiers of technology). But it scores low on major count of communications. Long lines of transport are less important in electronics than most other industries far as raw materials, finished product deliveries, concerned, but personal communications are crucial. Many American business are deterred from travelling between Scotland and Europe the paucity of direct air links, especially with Edinburgh.

A better service could be towards extending the sophistication and resilience of Scottish electronics industry can never hope to be complete independent of outside contact until it transcends exceptions to the general rule of branch economy character. It will never be freed from limitations imposed from across the Atlantic and south of to make his country as im-

Investment in drinks sector

By PAUL SCOTT

Millions of pounds are being invested in Scotland by the brewing and whisky industries in new and modernised plant to meet steadily increasing demands. The rapid expansion of production capacity is a clear indication of confidence in the future.

On the brewing side, Scottish and Newcastle Breweries, the only one of the major groups with its headquarters in Scotland, inaugurated the first phase of its £12.5m. New Fountain Brewery in Edinburgh in July this year. When completed it will be one of Europe's largest and most highly automated complexes.

A further investment of about £8m. is planned by the group over the next two to three years, which will include the installation of a 5,000 dozen-hour canning plant by the end of next year. The company, the biggest of the free trade brewers has been making increasing inroads into the English market and more than 50 per cent. of the beer brewed in Edinburgh is now consumed in England, Wales and Northern Ireland. A very substantial amount will also be spent in the next two or three years on the refurbishing and extension of the managed house side of the business.

Ushers, the wholly owned subsidiary of Vaux and Associated Breweries, is planning capital expenditure of just under £10m. in Scotland over a five year period. Of that, £3m. will be spent on doubling the capacity. Tennant Caledonian Brewery, a subsidiary of Bass Charrington, has invested over £5m. in developing their Wellpark brewery in Glasgow and

regard this as an on-going project.

An attempt by the Clayton Committee to add a more civilising influence to the Scots' reputation for hard drinking seems to be causing the Government anxiety, although the Scottish Office has denied that the recommendations have just been quietly shelved. Among the committee's main recommendations were an extension of permitted drinking hours to 11 p.m., and new certificates for "refreshment houses" with family facilities. Drinks with meals, they advocated, should be available until 1 a.m.

Take-away food

To some extent the brewers have anticipated Clayton by changing the atmosphere and furnishings of public houses, and placing an increasing emphasis on meals. With an eye on the growing trade in take-away food shops, there is even talk of tacking such places on to public houses.

The trend towards making drinking more leisure oriented is also more noticeable, and there was the interesting announcement earlier this year by Scottish and Newcastle that it had formed a partnership with Golf Services International to build leisure complexes both here and in Europe. In September outline planning permission was granted for a country club sports complex at Cirencester Park, Gloucestershire, which will include an 18-hole Championship golf course, a 50-bed room country clubhouse, restaurant, squash and badminton courts and a swimming pool. By the turn of the year it is hoped to announce the first European complex.

North Sea oil has also opened up new opportunities for the industry. Again Scottish and Newcastle has set the pace by joining forces this year with Seaforth Maritime of Aberdeen—one of the largest general oil service companies in the U.K.—to offer a full catering service

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OTLAND XV

Timber industry's health a cause for concern

GEORGE HODGE

The health of Scotland's timber industry is a subject which has friends and dependants calling anxiously at the door. They can't agree on whether or not the industry is of sorts. And they cannot agree on any remedy, except that it takes for more of the country's forest products to be.

Any attempt at a census means fusing claims in range from predictions of 3,000-tonnes a-year shortfall mass closure of sawmills, to her which sees supply and in acceptable balance. ly does an industry dis- about its figures as basic as that.

It that consensus says that a is a shortage of Scottish- n timber and that there be for a few years yet. In nation of exploding world and there could be little considering that there is a British shortage, and a mean one as well, clamour to be fed at new, hair- prices from the forests inada and Russia.

membering the 140,000 es taken by north of and pulp and board makers sawmills, there are three r sources of home demand the softwood cut in Scot- 60 per cent. of it supplied e Forestry Commission, 40 cent. by private owners.

Prime logs

sawmills have tradition- taken the prime logs, uring over 18 cm. in fer, converting them into requirements of industry. ar Fort William is the big and paper mill of Wiggins calls "an heirarchy of utilisa- from the forest." For it is with the establishment of units such as Wiggins' Teape and STP that the blame-laying begins.

The Forestry Commission does not really enter the lists. Asked to comment on any pre- sent shortage, its spokesman says that the price of imported wood, supplying 90 per cent. of British demand, means that every place of home-grown timber will be absorbed.

However, the private growers, whom one might expect to be happy in a seller's market, explain why they are not happy at all at what they say could be a 230,000-tonnes shortfall in 1975.

"From a utilisation point of view, we welcome Wiggins Teape and STP," says Mr. R. G. Sangster, secretary of the Scottish Woodland Owners' Association. "But our fears rise because the sawmills, pulp mill and chipboard makers are competing fiercely with one another and making one another unviable. The sawmills will be hurt first and you will have sections of the industry closing down and we growers will be left with the juggernauts, dictating prices."

Unrealistic prices

The arrival and the policies of the big, high investment projects is blamed for to-day's shortfall by the Home Timber Merchants' Association of Scotland. A combination of circum- stances had some sawmills with less than two weeks supply in their yards, said secretary Mr. Donald Macarthur, a Glas- gow lawyer. He predicted that the next two or three years could shut down between one third and one half of his members, starved of supplies, forced to pay unrealistic prices and extremely short of harvest- ing labour. The others would have to operate less than efficiently, because of sawlog shortage.

Mr. Macarthur claimed that Wiggins Teape were now paying prices that were "over the moon" for prime sawlogs and turning them into pulp. "After 40 years of growth, prime sawlogs which are the life- blood of the industry, are going into someone's grinder and being turned into mush," he said. "This is a war between the big boys and it is a war in which the little boys get hurt."

Mr. Leslie Dewhurst, general manager at the Corpach pulp mill, agreed that he had been buying prime standing timber at auction to boost his intake of over 300,000 tonnes a year. However, although he knew that

this would fall short of his re- quirement for full output, he was selling the prime logs back to the millers and keeping only the small roundwood for him- self. This was a way of guaran- teeing himself more of the small wood that was going.

Mr. Dewhurst said that the supplies of small roundwood, the one-time unwanted reser- voir he had set up to exploit, after first investigations in the early 50s, was now being attacked from two new direc- tions. Improved techniques were allowing the sawmills to take wood of much smaller diameter and STP had entered the market.

Without doubt, STP, is some of the industry's choice for the rule of bogeyman. It is the brainchild of former De La Rue executive Michael Lyons, who pulled-together institutional and local money (30 per cent. of the equity is held in Scotland, some of it by millers and growers), and placed his plant strategi- cally near Stirling. This gives access to the operators of northern and southern forests and to the very big sawmills of Central Scotland, who must get rid of the residues from the timber they import through Grangemouth, on the Forth.

STP is now on stream and will use 210,000 tonnes of material in its first year, one- third of it small roundwood, the rest residues, to produce chip- board, initially planed, coated and even melamine-covered, but it also intends to produce fully waterproof board.

Mr. Lyons says he is pinching very little small roundwood from Wiggins Teape, since a sig- nificant portion of it is coming from Southern and Eastern forests, denied realistic haulage charges to Corpach by distance barrier. What exists to-day is not really a sudden famine. A shortage of prime sawlogs would be a continuing fact, not helped by the sawmilling interests, who

had increased their own capacity too soon.

About 60,000 tonnes of extra softwood was being felled in Scotland each year, said Mr. Lyons. Yearly, 200,000 tonnes of sawmill residues was being produced and had to be used if sawmilling was to remain econo- mic. Industries such as STP were needed to handle it and had to be built big to be economic themselves. Thus capacity had to step ahead of supply for a while and the processing indus- tries must import or work at lower utilisation levels until the timber supply caught up.

The situation seems to be this. World demand and world prices make a current Scottish shortage and high Scottish prices inevitable. Sawmilling is useful to say the least about the demands of Wiggins Teape, STP, and other processors, forget that they have been raising their own capacity since the big operation to clear the great wind-blow of a few years ago. All these three sectors, because of material scarcity and sawmilling innovation, are attacking the supply of small roundwood, useless and un- wanted when the pulp men made their plans. And the Big Two, naturally protecting their large investment with three- to ten-year contracts for timber supply, should not be surprised if the sawmills, not all blessed with the hottest management (and foresight) in the world are, just as naturally, fearful of the immediate future and anxious about the next decade despite the industry's need for these processors.

But it is encouraging to look ahead to the late 1980s when the Scottish forests will be producing about double the quantity of coniferous timber cut in 1970. This suggests not only an eventual increase in capacity by efficient Scottish sawmills but by the pulp and chipboard manufacturers as well.

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Continued from previous page

Investment in drink

on-shore and off-shore. In fact, the company merged the catering division of oil.

e company has also bought in Shetland and another Unst, and is going to lop its Caledonian hotel in deen with an obvious eye tracking even more custom those in the oil industry. very considerable growth e off-licence business, with of the take-home trade ng into the supermarket, in as a strong indication of ater move towards people ng at home. In the past canned beer sales have up in Britain by 90 per and in Scotland by around 60 per cent.

oking at the Government's Three proposals, the trade County Council to convert 400 uthing there to stop the acres of Forth Valley waste- ing demand for beer. In land into a multi-million pound

fact, Mr. Peter Balfour, chair- man of Scottish and Newcastle and of the Brewers' Association of Scotland, says: "Stage Three may not do anything to help our profits but it will do plenty to help our sales."

In the whisky industry, capital investment in Scotland has been even more spectacular. In the past four years around £100m. has been spent on new plant.

The Distillers Company has just about completed a big bottling and blending plant at Leven in Fife which, when it was announced in 1970, was expected to cost about £2m. The final figure is likely to be well in excess of that.

At the end of September DCL also submitted plans to Stirling County Council to convert 400 uthing there to stop the acres of Forth Valley waste- ing demand for beer. In land into a multi-million pound

bonded warehouse development. Four or five new distilleries are also being built in Scotland, and the Scotch Whisky Associa- tion reckon that this year alone capital investment is likely to exceed £30m. The reasons for this rapid expansion are not hard to find. Home sales this year have been buoyant, while exports—which account for about 85 per cent. of sales—are going up steadily at a rate of 9 or 10 per cent.

The most dramatic growth is in exports to Japan, which rose 237 per cent. in volume and 251 per cent. in value in the first eight months of this year com- pared with the same period last year, to a total of 4.1m. proof gallons worth £12.5m.

Shipments to the U.S., still top of the league, advanced 20 per cent. in volume to 20.5m. gallons out of a total export of

47.5m. gallons, and 22 per cent. in value to £62.5m. Last year the industry sent 70m. proof gallons of Scotch overseas valued at £237m.

Although it is in a strong position, the industry has not been without its problems or its critics. A Scotch union leader earlier this year claimed that 6,000 bottling jobs were being lost to Scotland because a large amount of whisky is being shipped in bulk to the U.S. instead of being bottled here. While sympathising with the union, the industry blames anomalies in the U.S. tax laws which mean that whisky imported in a bottle has a 15 per cent. higher tax than that imported in bulk. It sees the only solution being for the British Government to take a harder line.

Bulk shipping to Japan has also brought protests about the long-term damage this could do to the Scotch whisky industry. By adding certain quantities of good malt whisky the Japanese could improve the standard of their own blends, and since Japan is trying to get its whisky into the export markets, bulk exporting is seen as a short-sighted policy.

Many distilleries, in fact, do not send in bulk to Japan but the feeling is that only the Government could take action to put a stop to it altogether.

Grain whisky

A note of concern was also introduced this year by a survey carried out for Tomatin Distilleries which showed a serious disparity between supply and demand for malt and grain whisky. This suggested that while the likely production of malt whisky this year would be about 3m. gallons short of estimated require- ments, the surplus of grain whisky at the end of 1972 was likely to be 230m. gallons. There was even talk of some of the grain whisky not sold for blends or other purposes hav- ing to be poured down the drain.

Despite the facts and figures produced, not everyone agrees with the forecasts. According to the Scotch Whisky Associa- tion the shortage of malt whisky exists only in certain makes and ages. Since malt whisky production is increasing it is felt the situation will tight itself.

While it is admitted that the years 1963, 1964 and 1965 pro- duced an embarrassing abun- dance of grain whisky—blamed largely on speculators outside the industry who subsequently got their fingers burned—the Association doubts whether this surplus is likely to end up merely adding an unusual aroma to our sewage system.

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BANK OF SCOTLAND
Oils the wheels of industry

SCOTLAND XVI

Major breakthroughs in tourist industry

By DAVID ARTHUR

Scotland's rapidly expanding tourist industry has behind it a growing volume of investment in new hotels, restaurants and recreational facilities, sponsored not only by developers from the U.K. but, in a modest way, from the U.S. and the European continent. Untapped resources are at present being carefully studied.

Hotel occupancy

To help developers to select the best locations for any particular new venture a computer-aided service has been set up by the Scottish Tourist Board in association with Edinburgh University. A resources data bank covering the whole of Scotland has been established into which the developers' requirements can be fed to ascertain the available potential. It deals with land use, accommodation and recreational facilities, like golf, tennis, fishing, sea angling, cruising and pony-trekking as well as places of historic and cultural interest and also provides much basic information. The fee charged only covers the cost of the computer time used and the service is believed to be the first of its kind devised in the tourist industry and will meet with a considerable response.

Within a decade the tourist industry, which is now worth over £300m. annually to the Scottish economy, has changed dramatically to become a highly organised, professional business, designed to win and retain its substantial clientele by good service at reasonable prices. Only seven years ago when the Aviemore Centre was opened many regarded that venture led by the late Lord Fraser as a dubious act of faith. Now recognised internationally as a conference and recreation centre, the original £2.5m. investment has been augmented in many ways. With a further 90-bedroom hotel and eight-unit shopping arcade under construction, the viability of the whole project is no longer a pipe dream.

One cannot ignore the generic spin-off to hotel and catering development from North Sea oil exploration and the urgency with which road and rail development is being tackled at a pace unknown for many years. Unruffled by the often misleading adverse weather forecasts,

Scotland is casting a magnetic spell on countless numbers of people now enjoying increased leisure time and looking for attractive places to visit, with an abundance of healthy recreations, good food and comfortable modern accommodation.

Scotland has had a good share in the growth of international tourism and the latest available figures show that during the past season there were close on 1m. overseas visitors, while U.K. residents taking a holiday of one night or more North of the Border accounted for nearly 7m., of whom two-thirds stayed more than four nights. Accommodation during the late June-September period was very heavily taxed after the initial quiet opening. The summer peak was particularly marked in the North-East outside Aberdeen, the Clyde Region and the South-West and greater crowds than ever made their way to the North-West.

On the basis of the Hotel Occupancy Survey of the Scottish Tourist Board, hotels charging more than £8.50p have an all-year average occupancy of 48 per cent. and these charging less than £4 an occupancy of only 35 per cent. Hotels of more than 50 bedrooms show an occupancy of up to 46 per cent.; those with less than ten bedrooms only a 34 per cent. occupancy and the higher occupancy of the more expensive hotels is attributed to business and conference use.

Of the £300m. turnover, overseas visitors are credited with spending nearly £60m.; business travellers about £40m., while U.K. holidaymakers and trippers make up the remaining £200m.

Under the Hotel Development Incentive Scheme, which ended on March 31 last, nearly 5,500 new bedrooms have been built in Scotland in the past few years and 80 per cent. of these have private bathrooms. It has cost the industry some £22m. in capital development, with the taxpayer contributing by way of grants £5.5m. Over 1,200 permanent jobs have already been created and this number will rise to at least 4,000 when all the new hotels are fully operational. The distribution, however, has been more favourable



The Forestry Commission's first forest cabin holiday scheme. The log cabins nestle beneath Strathyre Forest on the shores of Loch Lubnaig in the heart of the Trossachs countryside.

to the large cities than to the rural areas—an imbalance which the Tourist Board is seeking to redress by various methods. For instance, there are only 60 new bedrooms in all four Border counties compared with 1,200 in Edinburgh alone and 1,600 in Glasgow and Renfrewshire.

Guest houses

In the less populous Highlands and Islands Development Board area 345 hotels have received loans of £334,000 and grants exceeding £2.1m. Grant facilities have been withdrawn in areas like the Inner Moray Firth and Badenoch because the need has been fairly well satisfied and a concentrated drive is

now being made to develop hotels of a high standard in the less populous areas like Sutherland.

Guest houses assisted by the Board number 65, with loans of £83,000 and grants of £86,000; 54 restaurants have received loans of £96,000 and grants of £77,000, while loans of £33,000 and grants of £59,000 have gone to 39 caravan site projects.

About 10,000 people have made inquiries for the grant-aided holiday cottage scheme and these are being processed. Acquiring suitable land for such projects is a major problem, and with the current housing shortage the Board is seeking a solution which will not outprice the crofters or local

inhabitants from getting a suitable home.

Among the overseas visitors interested in acquiring holiday villages are a group of West German industrialists who have also been prospecting the Scottish industrial scene for new investment. Their decisions so far have not been announced.

Measures taken to extend the holiday season at both ends of the busy four summer months are showing improved results. Particularly encouraging is the response to the autumn and winter sports attractions and this has given the organisers some hope that the benefits of a stay in the bright and invigorating Scottish countryside in spring time will ultimately find favour with a greater number of people from the South.

London. Prices include dinner, three new capital work projects involving an expenditure of £300,000. The first of these between January 5 and April 6. The special "Spey Packs" offer equipment hire, tuition, transport to and from the slopes and unlimited use of chair lifts and ski tows from a basic £19 for six days.

Snow and water resources are two of the most important sectors for tourist development. Through the generosity of a private donor, Cairngorms Sports Development received a substantial grant from the STB for the provision of ski lifts and other facilities in Coire na Ciste. With an equity contribution from the Highland Board the company is providing uplift facilities for an additional 1,500 skiers per day. On the water-front construction has started on Scotland's first major marina at Inverkip on the Clyde estuary. This will provide 350 berths for yachts and other craft and marks a significant start on the planned provision of modern amenities for water-based holidays and recreation.

One aspect of the professional approach to the tourist industry is the increasing number of catering and management classes conducted by local authorities, with several hotel groups running their own "schools." Promotional efforts on a grand scale are being undertaken after careful market research and the regional associations are giving their full co-operation in both home and overseas campaigns. Aimed at developing management expertise in the promotion of tourism, Strathclyde University has successfully completed its first post-graduate course and is attracting new entrants from the South for subsequent courses.

The efficiency of the nationwide advance booking system designed to counteract "overheating" and disappointment during the busy season has favourably impressed visitors from England and overseas. In the Highlands there are 50 information centres stemming from 15 area organisations, while the rest of Scotland is covered by some 300 information centres supplemented by those of the local authorities and the major national centres.

The STB is contracting on

Varied programmes

All branches of tourism are fully conscious that holiday makers do not select Scotland merely to "bask in the sunshine" but expect a wide variety of healthy recreation and entertainments to supplement the country's natural scenic beauty. Much thought has been given to the high varied programmes devised for the 1974 season and this aims at novelty as well as surpassing the most popular events of the past season.

Government measures have been welcomed for increasing the safety of hotel guests by introducing new legislation which enables local authorities to make loans to the proprietors of small hotels and boarding houses for the work required under the Act. As the backbone of Scotland's tourist accommodation largely consists of such hotels, the Act is important as its implementation is being carried out by the Fire Authority with a great deal of care to remove the hazards from the older hotels, such as occurred in Oban in July when nine holidaymakers from Devon at Somerslost lost their lives in a disastrous fire in a four-storey hotel when the internal wall collapsed. Though the construction industry has never been so busy for years, the manpower is being made available by bringing the general safe requirements up to the standards set by the authorities.

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ELECTRICITY SUPPLY

BY HAROLD BOLTER, INDUSTRIAL EDITOR

An acute case of price restraint

THE largest proportion of the £146m. which the Government is to pay to three national industries—electricity, gas and Post Office—to compensate for price restraint in the last three years, will go to the area boards in England and Wales as to get the Scottish boards £10.2m. In effect, the Government has recognised that the electricity industry is a main arm of its inflation policy has led to financial and economic distortion, and nowhere is this more acute than in the electricity industry.

The true increase in electricity charges in terms of revenue per unit sold is even less than 19 per cent. As a result of selling a higher proportion of electricity on cheap tariffs at night, the average yield from the tariffs went up by only 12 per cent. Since April there has been a further price rise, averaging 44 per cent, but this has done nothing to change the relationship between electricity charges and the other indices.

Domestic, rather than industrial, tariffs have become the real problem. In the first place, the Government has acted more vigorously to hold down proposed price increases affecting householders because of the political difficulties of implementing a price and incomes policy. Secondly, charges paid by industry are linked automatically to the rising cost of fuel burned in power stations, while domestic charges are not.

Showrooms

As a result, domestic tariffs are now so far out of phase that the area electricity boards are in the weird position of having to consider telling their retail showrooms to sell pedal sales of domestic appliances and central heating systems because of the extra demand they would create for electricity. This is doubly unfortunate. Retail sales of appliances have helped some of the area boards to remain profitable in the past; and the industry is naturally anxious, longer-term, to preserve its share of the energy market, particularly as it feels that its role will

ELECTRICITY SUPPLY INDUSTRY IN ENGLAND AND WALES

	1968/69	1969/70	1970/71	1971/72	1972/73
INCOME					
Sales of electricity	1278	1328	1388	1565	1717
Profit on contracting, appliance sales	8	7	8	10	16
Other income	15	14	16	19	21
Total revenue	1304	1349	1412	1594	1754
EXPENDITURE					
Fuel (delivered) and purchases of electricity	397	421	513	576	686
Salaries and related	199	207	228	262	285
Materials and services	103	114	126	139	154
LA rates	38	40	44	52	58
Depreciation	251	261	276	292	312
Sub-total	998	1043	1207	1335	1535
Operating Profit	306	306	205	259	219
Interest	222	241	261	282	297
PROFIT/LOSS(—)	101	65	(—)56	(—)23	2
Average Net Assets	4584	4794	4958	5090	5192
Net Return %	7.1	6.4	4.1	5.1	5.8
Unit Sales million kWh	160,269	168,230	174,254	177,579	191,326
Average income p/kWh	8.798	8.798	8.797	8.881	8.897

become even more important as nuclear energy starts to make a real contribution.

Whatever the future may hold, it is clear that a once profitable industry is now in a state of confusion. It expects to make a loss of over £50m. in the current financial year, and so far it has been unable to get any guidance from the Government as to how quickly it can get back to normal commercial pricing.

It is not a question of disputing the necessity for the Government's present prices and incomes policy. The industry has consistently accepted restraint in the belief that its customers stood to gain by the containment of inflation. It would be wrong, nevertheless, to ignore the effect which restraint has had on cash flow and borrowings and could have on energy resource utilisation.

To understand what has happened to the electricity industry it is necessary to go back to 1969-70, the last year in

which it came anywhere near meeting its financial target set by the Government, a net return of 7 per cent. on net historic assets. In that year it managed to achieve a profit after interest charges of £85m., a return of 6.4 per cent., following a surplus of £101m. in the previous year, a 7.1 per cent. return. Since then, the industry's financial position has deteriorated rapidly.

Tariffs

Things started to go seriously wrong early in 1970, when coal costs rose by 10 per cent. and later in the year by another 16 per cent. As coal accounts for 70 per cent. of the fuel used by the Central Electricity Generating Board, this was a massive addition to costs. The Electricity Council, acting on behalf of the area boards and the CEGB, which produces the electricity the area boards sell, put forward proposals for an

increase averaging 30 per cent. in domestic tariffs.

But the then Minister for Industry, Sir John Eden, used his influence to cut the increases back to 12 per cent., although the electricity industry believes that at that time there was no statutory backing for his intervention. Sir John's argument, which has become familiar over the past three years, was that although the Government believed that it was necessary for the electricity industry's finances to be put on a sound footing, this was not the time for heavy price increases. The Government, however, was about to get to grips with the problem of inflation.

Not only were the planned increases of 30 per cent. cut back, but their implementation was delayed until April, 1971. Electricity Council, acting on behalf of the area boards and the CEGB, which produces the electricity the area boards sell, put forward proposals for an

increases for domestic users, it tried to get these tariffs directly tied to rising fuel costs. What it had in mind was a fuel cost surcharge similar to that which has operated for some years on tariffs for industrial users of electricity.

Restraint

The plan had to be dropped, however, when the Confederation of British Industry, of which the electricity industry is a member, produced its voluntary price restraint policy. In less guarded moments the leaders of the industry were at that time saying that no private company would be silly enough to sign the CBI initiative if it was in the position electricity was in. But before they were even consulted, the Chancellor of the Exchequer stated that the nationalised industries would comply with the Confederation's policy. Electricity duly complied.

Early last year the area electricity Boards raised prices by an average of around 5 per cent., the CBI limit. But coal prices meanwhile were allowed to advance by another 75 per cent. in March of last year, despite CBI restraint, largely to safeguard employment within the coal industry. All the Boards could do was to wait for the end of the Confederation's policy, intended to be in July last year. Unfortunately for them, as it appears now, the Government and agreed to extend the period of restraint for a further three months in return for a promise of economic growth soon after it ended.

So with the thought that the extended CBI initiative would indeed finish in the autumn of last year, the electricity Boards went through the lengthy consultative process of preparing

for price rises averaging 9 per cent. to take effect from November 1 last year, but with 15 per cent. or more on domestic charges and a much smaller amount on industrial tariffs. Like many another well-laid industrial plan, it was overtaken by the freeze.

Last month the electricity industry finally squeezed a price rise through the Prices Commission, but only after three months of negotiation. And once again it was less than sought. Last month the area boards were allowed to put up their charges by an average of 4½ per cent., about 3 per cent. less than it wanted, with a ceiling on any increase (and that obviously meant domestic charges) of 7½ per cent. What this has done is to perpetuate the distortion of domestic charges, even though one can well understand that to do otherwise would have been politically dangerous against the background of Stages Two and Three of the Government's counter-inflation policy.

Break even

Within the 7½ per cent. average they wanted, the area boards were keen to apply increases between 6 and 16 per cent. for householders and less than 4 per cent. for industry, where tariffs are less a cause of longer-term concern because of the automatic price adjustment mechanism. Instead, domestic charges are now going up by a maximum of 7½ per cent. and the complete range of increases will only bring in an extra £40m. this year rather than the £80m. needed for the industry simply to break even on present accounting conventions.

Although the industry is now to receive more than £100m. in compensation for previous price restraint, taking England, Wales and Scotland together, this will fail to meet at all adequately not match its loss of revenue. Britain's demands for power.

nor will it restore a reasonable return on new investment. In the electricity industry's view, the Government is only rubbing at the problem, and anyway is dealing with the compensation issue in the wrong way.

What the Government intends to do is to compensate area Boards on the basis of their actual deficits rather than on the basis of lost revenue. This has two effects: it reduces the total amount of compensation made available from a projected £165m. in England and Wales (up to last March, and more now) to just over £30m.; and it ensures that those Boards which have managed to make profits received the least compensation, taking away from them some of the incentive towards improved efficiency.

Inflation

With assets of £5,285m., the industry made an operating profit of £299m. (which came down to a marginal £2m. after interest) in 1972-73, a return of 5.8 per cent. in conventional terms and therefore bad enough. But even this puts a misleading gloss on the situation. Using the inflation accounting techniques which electricity, like much of U.K. industry, would like to employ, the return on a much higher asset figure can hardly be more than 1 per cent.

With domestic tariffs now so far out of line, it would take the industry at least two years to get them back into a proper relationship, even if the Government allowed it to do so, and then only with substantial price increases during those years. But unless prices are allowed to advance in this way, there is every danger of electricity ending up as a permanently subsidised industry—or one which will fail to meet at all adequately Britain's demands for power.

Labour News

Liverpool dockers to act for 20% rise

OUR LABOUR REPORTER

POOL DOCKERS yesterday in favour of industrial back into the dockers' National Shop Stewards' Committee, in support of a 20 per cent. rise. The meeting was held at the Liverpool docks, where a strike call will be taken to a national conference of shop stewards from major ports to be held in London on Saturday. Yesterday's meeting backed a strike call for a 20 per cent. rise in average earnings for dockers, full-back pay to average earnings, a 35-week and higher sick pay, and by about a third of the 1,500 dockers, the meeting and further industrial action if the claim is not met, by a possible overtime strike call.

Afterwards that the date of a national one-day strike would be fixed by the shop stewards' conference, which would discuss the dockers' pay claims.

For an unofficial stoppage time may draw only a number of response since a number of ports, including Liverpool, are still drawing up pay claims.

Irish ferry strike settled

THE STRIKE by Irish seamen over a suspended crew member which had halted all B and I sailings from Liverpool to Ireland for the past five days was settled yesterday.

The Seamen's Union of Ireland settled their dispute with the shipping officers' body, the Workers' Union of Ireland, after intervention by the Wright Commission in Dublin.

A spokesman for B and I, the main passenger line between Ireland and the U.K., said there would be an immediate resumption of the but declined to say what the settlement terms were.

Ambulancemen in West in routine calls

AMBULANCEN in the West yesterday voted to join in attending routine calls on midnight last night. At a meeting in Somerset, Wiltshire and Gloucestershire, 260 men in Somerset, Wiltshire and Gloucestershire, City Council officials would only be seen to reach hospitals.

Unfortunately, we shall have waiting on their door at 8.30 a.m. expecting an ambulance to arrive. We have no means of notifying them individually," he added.

A threatened ambulance strike in Leeds and the West Riding has been averted. Emergency services will continue to operate until a national delegates conference on November 20.

More than 2,800 ambulance personnel in Yorkshire, Lancashire, Cumberland and Westmorland, are banning emergency calls.

Ipswich crews are to stage a series of one-day strikes in support of the pay claim but a two-man crew will deal with strictly emergency cases.

Strike by journalists made official

LIKE by 66 journalists stories and pictures from the Evening News, Middlesbrough, has been made official by the National Union of Journalists.

The union said yesterday that the strike resulted from a decision to end a agreement on pay and conditions.

It said that the journalists had decided to go on strike because of a decision to end a agreement on pay and conditions.

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It said that the journalists had decided to go on strike because of a decision to end a agreement on pay and conditions.

Union denies £1m. 'sent abroad'

By Our Labour Reporter

REPORTS that the Association of Cinematograph, Television and Allied Technicians had moved nearly £500,000 of assets abroad for protection from the Industrial Relations Act were denied last night by the union's general secretary, Mr. Alan Sapper.

Third oil platform order for Norway

BY CHRIS SAUR, SCOTTISH CORRESPONDENT

EDINBURGH, Nov. 18

A THIRD concrete production platform for the North Sea oil and gas industry is to be built in Norway. It was announced today. The £15m. order has been placed with the Anglo-French Howard-Doris Partnership.

Total Oil Marine of Great Britain is operators of the Frigg gas field east of Shetland. The 360-foot structure weighing 230,000 tonnes will be used as an intermediate pumping station on Total's pipeline from the Frigg field to its landfall at St. Fergus, Aberdeen. It will be built at Andalsnes, north of Bergen.

The announcement followed the award of similar contracts by Shell and Mobil to Norwegian contractors for concrete platforms destined for the Brent and Beryl oil fields off Shetland.

Public inquiry

The choice of a Norwegian site will strengthen the efforts now being made by other British companies and the Department of Trade and Industry to secure development approval on at least one of the few Scottish west coast sites from which it is considered a competitive effort to the Norwegians could be mounted.

Two British companies—John Mowlem and Taylor Woodrow Construction—are arguing at a public inquiry in Wester Ross for the release of a site at Drumburgh, on Loch Carron, for building concrete platforms.

Supported by the DTI, they claim that considerable national economic benefits would be forfeited if Drumburgh, partly owned by the National Trust for Scotland, were not made available to U.K. industry.

The DTI has valued the British requirement for concrete platforms at £400m. by 1985. This point has been underlined by John Howard and Co., a British partner in the latest Norwegian venture. It says that it searched for six months for

'Selected'

Such sites exist (Drumburgh is one of three) but the company opted for Norway because it is the only area adjoining the North Sea with sheltered deep water where the authorities give planning consent within two weeks.

Sir John Howard, chairman of the company, said it was "in the national interest" that U.K. sites should be developed in "carefully selected areas."

Estimates indicated that more than 100 platforms would be needed by 1985 to develop crucially important gas and oil fields in the North Sea. Many of these could be built in Britain.

The French partner in the group is C. G. Doris, of Paris, which specialises in marine and off-shore services. It designed, supplied and installed the Esholm oilfield storage tank ordered by Phillips, the first concrete structure of its type—also built in Norway.

Studies

Work on the Frigg project will begin shortly with completion in May, 1975. The two companies are jointly conducting further studies for structures to be used in water depths of 600 feet or more. In all types of seabed concrete platforms.

M. Jacques Lamy, president of Doris, and Sir John Howard are joint heads of the partnership.

Total Oil Marine last week awarded a £5m. contract to M. K. Shand, of Invergoron, Ross-shire, for coating 250 miles of subsea pipeline which will be laid during 1974-75 from Frigg to Aberdeen-shire.

The Gas Corporation has said that it would spend £170m. to provide a shore terminal and lay twin pipelines to the Scottish central belt and to the North of England.

BSC makes £3m. half-year profit

BY HAROLD BOLTER, INDUSTRIAL EDITOR

THE BRITISH Steel Corporation, which started to bring in price rises averaging 11½ per cent. at the week-end, made a consolidated after-tax profit of £3m. in the six months ended September 29, it was revealed last night.

This compares with a loss of £4m. in the corresponding period of last year and a £5m. profit in the whole of that year, which ended on March 31.

The half-year result is a disappointment to Dr. Monty Finniston, the BSC chairman, who had been hoping to make the kind of profits which would have justified an interim dividend payment on the corporation's public dividend capital.

Although the £3m. profit represents an improved result, it is regarded as inadequate for a business with net assets of some £1,400m. and a rate of turnover at the half year of more than £1,600m. a year.

"This is insufficient to enable the corporation to achieve its financial objectives and to remunerate its capital adequately," the corporation said last night.

It claimed the half-year profit would have been substantially higher if the BSC had not shown considerable restraint in keeping its prices below international levels as a contribution to the fight against inflation.

The 11½ per cent. price rise introduced at the week-end will yield about £140m. a year to the corporation in extra revenue in a full year.

In what remains of the current financial year it will only be worth about £52m. and as raw material and transport costs have risen substantially, the BSC will be fortunate to end the year with a profit of a few million pounds.

BSC steel production in the half-year totalled 12.2m. liquid tonnes. Both home and export deliveries would have been higher, in response to heavy demand, but for production setbacks caused by disputes and technical difficulties.

To the event, total deliveries amounted to 8m. product tonnes. Home deliveries, at 7.5m. tonnes, were 1.1m. tonnes higher than in the corresponding period of last year while exports, at 1.5m. tonnes, were 300,000 tonnes down.

Alcan Foils to spend £5m. on plant switch

BY KEN GOFTON

ALCAN FOILS, a subsidiary of Alcan Aluminium (U.K.), announced yesterday to spend £5m. over the next two years, boosting its capacity by a third. The company already claims about 30 per cent. of the U.K. market of 35,000 tonnes of foil a year.

Demand was growing at an annual rate of 7.5 per cent., spokesman said yesterday.

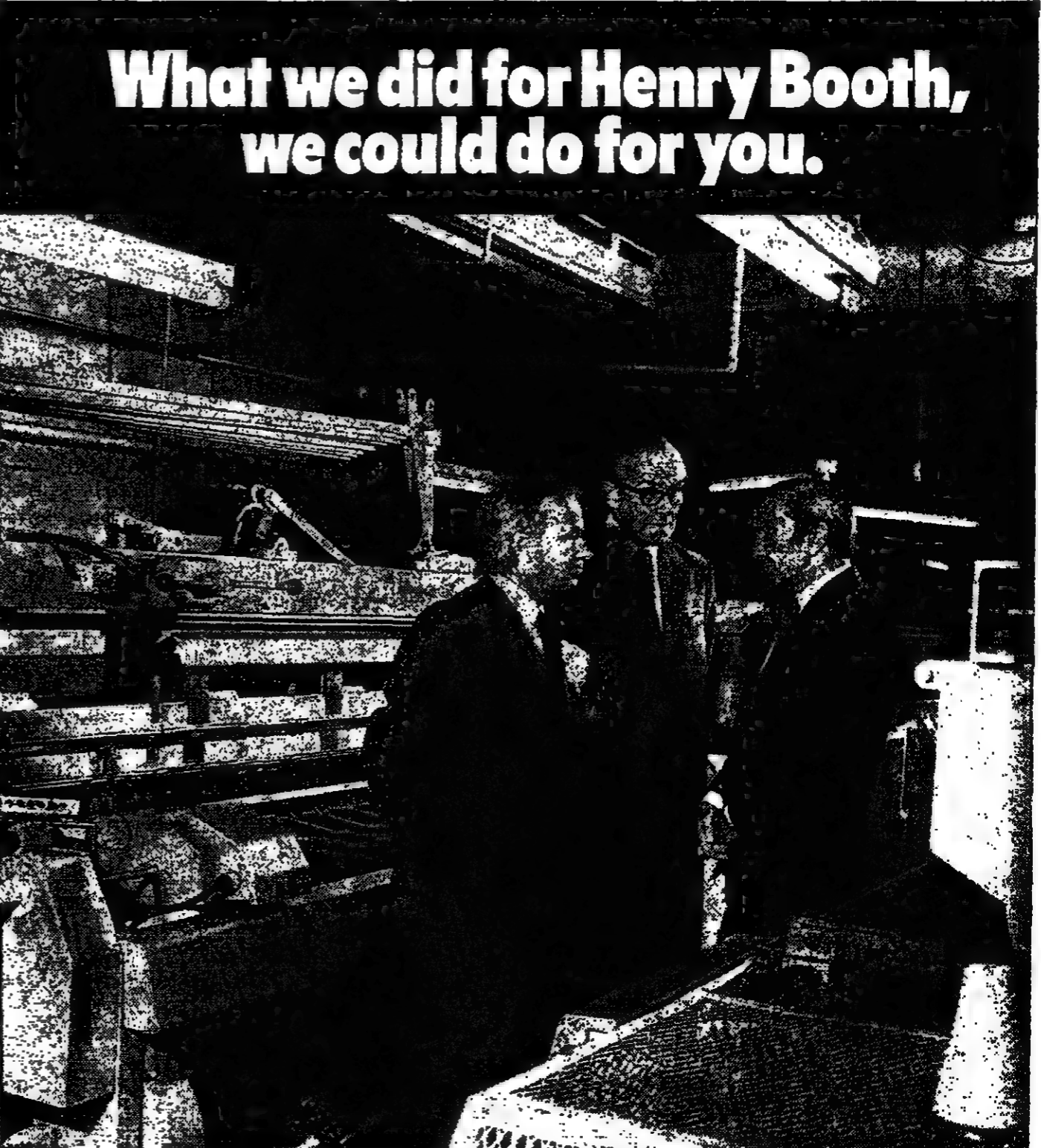
Packaging was the most important outlet, with rigid containers for catering of increasing importance.

Because of a lack of space at Alcan Foils' headquarters at Wembley, the plan calls for installation of three foil rolling mills at the Rogerstone, Monmouthshire, plant of Alcan Booth Sheet, a sister company. These

should be in operation by early 1976, after which out-dated equipment at Wembley will be phased out over six to 12 months.

The development is expected to lead to creation of about 75 to 80 jobs at Rogerstone, and loss of about 110 jobs, mainly through natural wastage and voluntary redundancy, at Wembley.

Considerable investment and development will take place to make the Wembley site "a specialised conversion operation," said Mr. Michael Miller, managing director of Alcan Foils. The company intended to strengthen its position as a converter of packaging materials, which would ensure continuing employment for the majority of workers.



Norman Burhouse (Managing Director), Philip Booth (Chairman), Neil Hudson (Midland Bank manager, Morley branch)

Henry Booth & Sons Ltd., a family owned business, operate one of the oldest established mills in the U.K.—dating back to 1806. Producers of medium to top grade woollens for ladies' and men's trade, and specialists in the production of billiard cloth, face cloth and uniform cloth, they recently made the decision

to invest in new capital equipment. Current chairman is Philip A. Booth, direct descendant of Henry, and he automatically turned to their bankers, the Midland, for help in raising the finance.

His local manager suggested a Midland Medium Term Loan. These loans have the special feature of

flexibility of repayment—terms arranged to match in with the firm's own business pattern.

If your company is considering expanding in one way or another, a Medium Term Loan might be just what it needs; have a word with your nearest Midland manager (whether you are already a customer or not) and see.

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The £300m. cost of hushing-up aircraft

Michael Dome, Aerospace Correspondent, reports on a major headache for the world's airlines: aircraft noise

THE WORLD airline industry, which has recently suffered sharp rises in many costs, several factors. One is that notably fuel, is now fast approaching a decision on to be only marginally effective, another expensive dilemma. This is whether or not to install "hush-kits" to reduce the noise of present-generation subsonic jets. At an average cost of about £70,000 per engine, and with some 4,500 jet airliners in the world commercial fleet, the bill in theory could have to cover some 10,000 engines and amount to a staggering £700m.

In practice, not all of the fleet will have to be modified. Many of the older narrow-body airliners already in service for ten years or more will be phased out of mainline fleets in the near future, as more of the new-generation, quieter wide-body aeroplanes—747s, TriStars, DC-10s and A-300Bs—airbuses—are bought. Thus, only those narrow-body jets remaining in service into the 1980s will need this kind of modification. Assuming only half the present fleet is "hushed," the world industry's bill could nonetheless still amount to £300m. or more.

Complicated

The industry's concern at this hush-kit dilemma has been one of the topics at last week's International Air Transport Association annual meeting in Auckland. At the moment, there are no rules for the level of "supersonic" airliner noise, and although this is therefore a separate issue, it is one which the airlines will have to consider before Concorde enters service in 1975.

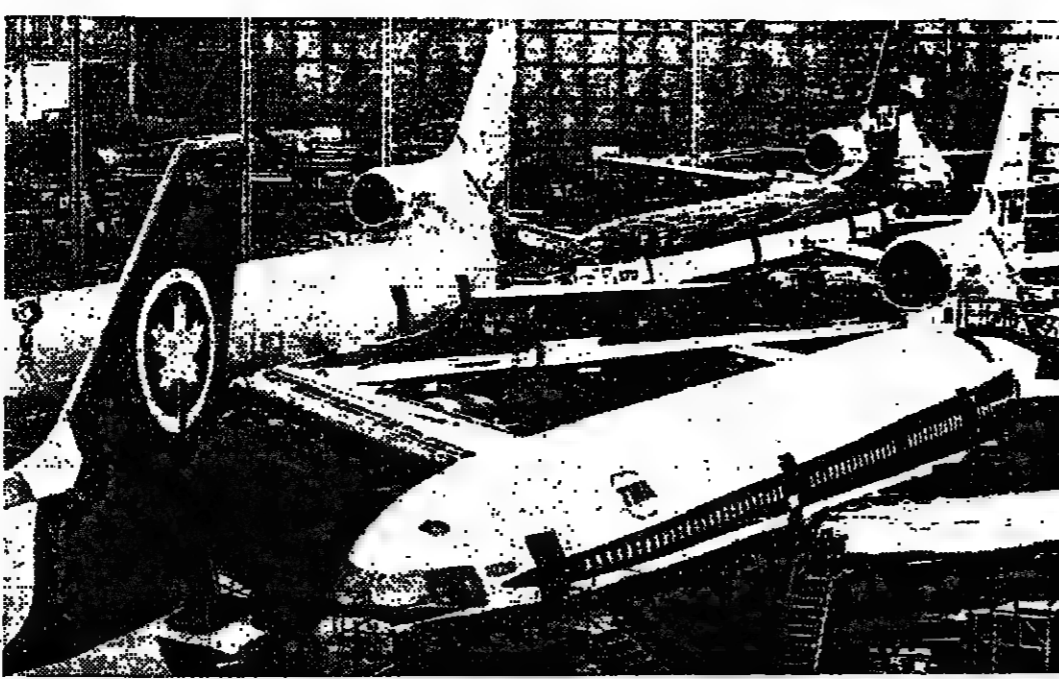
The situation facing the airline industry is complicated by sharp rises in many costs, several factors. One is that notably fuel, is now fast approaching a decision on to be only marginally effective, another expensive dilemma. This is whether or not to install "hush-kits" to reduce the noise of present-generation subsonic jets. At an average cost of about £70,000 per engine, and with some 4,500 jet airliners in the world commercial fleet, the bill in theory could have to cover some 10,000 engines and amount to a staggering £700m.

In the end, it will probably be the passenger who bears the cost by means of a "noise reduction levy" on his airline ticket. Such a levy, of 75 cents or \$1 a ticket, has already been suggested in the U.S.

Campaigns

Pressures for some action are mounting steadily. Communities round airports are becoming more vociferous and knowledgeable in their campaigns to get noise reduced, and governments are finding them formidable opponents. Already, for example, Heathrow Airport has been virtually closed to all but a few jet movements at night in the April-October period each year, and this squeeze is likely to be extended next year.

Many other improvements have also been won. At Heathrow, these include variations in the pattern of take-offs and landings to spread the noise in the immediate vicinity of the airport; the use of "minimum



The Rolls-Royce RB-211-engined TriStar in the TriStar assembly hall at Lockheed's Palmdale plant in California; this is claimed to be the quietest jet in airline service.

noise routes" to try to limit the spread of noise (not a welcome manoeuvre for those living under those routes); sound-proofing grants for homes; and revised take-off procedures to keep noise down as aircraft pass over the airport boundaries.

All these are palliatives, not cures. In the long-term, the only effective way of reducing disturbance is to curb the noise at source—to build quieter engines such as the RB-211s in the TriStar, and to go beyond them to even quieter powerplants.

Expensive

Research into this is already in progress. It is expensive and long-term, governed not only by what money the engine and air-

frame companies can get from governments or squeeze from their own resources, but also by the rate at which airlines buy the finished products. Ultra-quiet engines will be the central feature of the next generation of aeroplanes such as the European consortium's Quiet Take-off and Landing (QTOL) project and the Boeing 7X7. These will not be available until the late 1970s or early 1980s, and in the meantime airlines must do the best they can with what they have got.

So far, only about 350 of the new generation of quieter wide-bodies have entered service. Another 150 or so are on order. Because of airlines' financial difficulties, the rate of buying is slow, and will remain so for some time. Thus, the older generation of narrow-bodied jets — Boeing 707s, 727s, 737s,

Douglas DC-8s, DC-9s, and U.K. Trident and One-Elevens—will comprise the bulk of the world fleet for some years to come.

It is on these that the spotlight is now turning. As the quieter, wide-bodied jets move in, the noise of the older narrow-bodies is emphasised. This unfavourable comparison is accentuated by regulatory action in the U.S. and elsewhere which is forcing the airlines to move much faster than they either want or can afford into major modification programmes on these older jets.

Certification

Two sets of broadly comparable noise reduction criteria exist. One is a series of recommendations contained in what is called Annex 16 of the Inter-

national Civil Aviation Organisation. The other is Part 36 of the U.S. Federal Aviation Administration's regulations. The latter are mandatory for U.S. airlines. Under Part 36 Rules, every type of subsonic commercial jet is allocated a "noise certification level" according to its gross weight. The new generation of wide-bodies meets these rules already, and plans are being made to ensure that the narrow-bodies also eventually comply. Narrow-bodies still coming off the production lines—and many 727s and 737s are on order—must have hush-kits installed not later than December 1, 1974. Some have them already. For the older aircraft already in service, hush-kits must be installed progressively so that by 1978 all of them meet the Part 36 rules.

Noisier

The FAA recognises that even Part 36 is not entirely satisfactory. The Jumbo jet, for example, meets the rules for its weight bracket, but remains noisier than the lighter U.K. Trident which does not conform to Part 36. In any event, the person underneath does not measure noise by aircraft type; he knows what annoys him and he insists on having it changed. Accordingly, the U.S. plans to tighten Part 36 progressively to get noise down further.

These U.S. regulatory moves are already having several major results. First, as new hush-kitted narrow-bodies are bought from the U.S. and spread through world airline fleets, they accentuate further the unfavourable noise level of older, unhushed jets. Secondly, other countries are beginning to adopt rules similar to Part 36 or based on Annex 16.

As a result of these moves, manufacturers outside the U.S.

are finding that the pressures to develop hush-kits are growing. In Britain, Rolls-Royce is working with four airframe companies to quieten the Spey used in four airliners—the British Aircraft Corporation One-Eleven, the Fokker F-27 Fellowship, the Hawker Siddeley Trident and the Grumman Gulfstream Two. The aim is to enable the Spey to meet Part 36—important if those aircraft are to be sold into the U.S.—and any other similar rules that may be introduced in the immediate future. Spey-powered Tridents and One-Elevens together account for half the total aircraft movements at Heathrow and Gatwick.

A complete Spey hush-kit consists of noise-absorbent linings in the engine intake, bypass duct and jetpipe, together with a silencing nozzle at the rear. The aircraft companies are specifying the standards of kit they need for the various versions of their aircraft. Depending on the results of flight tests, Spey hush-kits could be ready for service from late 1974. Beyond the hush-kit is a new version of the Spey, called the Dash 67, which will be a quieter, higher-thrust development of the engine. It will be more expensive than a hush-kit, however, and it could be some time before any new aircraft or modified versions of existing aircraft emerge to use it.

Reluctance

The hush-kits may be on the way, but the big question is whether the airlines will be ready and willing to buy them, especially in Western Europe. Their reluctance stems not only from the cost but also from the fact that hush-kits add to the overall weight of the aircraft, reduce take-off thrust, and use more fuel.

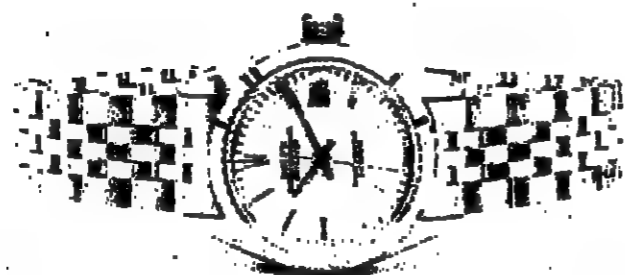
There is also considerable debate on the real improvement in noise levels which the hush-kits provide. A hush-kit in the total noise level (side-on flyover and approach) from a Series 500 One-Eleven can present 315 Effective Perceived Noise Decibels (EPNdB), which is above Part 36 rules, to 3 EPNdB, which is within them.

This may seem impressive but in human terms it may make a significant difference overall noise levels round airports and therefore be considered not worth the money. On the other hand, there are some psychological advantages to be gained from showing to communities that airlines are aware of the noise nuisance and are doing what they can to alleviate it.

Refanned

The argument continues, but solution is likely to be found soon by the pace of events. Airlines would prefer to be back for as long as possible the hope that more effective devices such as refanned engines become available. Though undeveloped, these are a way off and will inevitably be more expensive than hush-kits. In the meantime, environmental pressures for noise-sensitive communities round airports are becoming stronger and government is getting tougher, and is widely spread.

The airlines are thus caught in a squeeze from which it seems they will only escape by bowing to the inevitable and fitting hush-kits to their engines. Though not entirely convinced of their value. If so, it is certain that, in the absence of Government support, they seek to pass the bills on to passengers.



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Since Rolex made the first wrist Chronometer as long ago as 1910, they have incorporated many other innovations in their Oysters. Our craftsmen are well aware that time and technology do not stand still, and so they put a lot of thought, as well as care, into the making of each Rolex Oyster.

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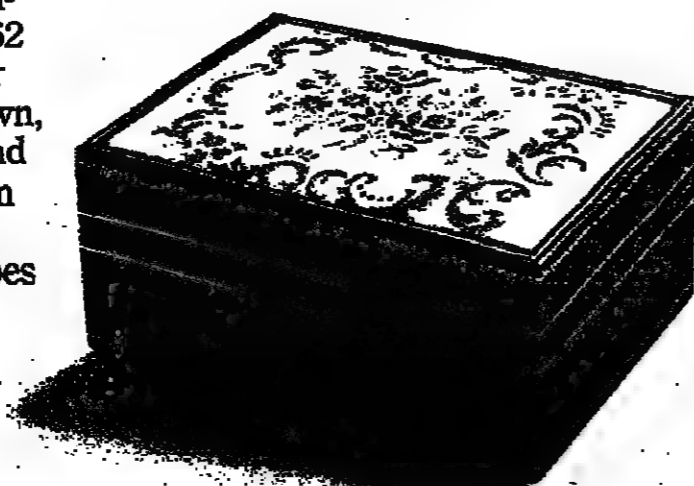
which is so accurate that it has been officially certified as a Chronometer.

There are four different Rolex Oysters made for women. All of them are beautifully feminine, and none of them fragile. A stainless steel model costs £137 and the Lady Datejust Chronometer shown here in 18ct. gold, costs £513.

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Rights for women 'inadequate'

By Elinor Goodman

PROPOSED LEGISLATION to end discrimination against women came under sharp attack at the weekend from two organisations representing women's rights.

The National Council for Civil Liberties and National Labour Women's Advisory Committee condemned the Government's proposals as "ineffective and inadequate."

The organisations say the proposed legislation, published in October as a discussion document, do not go far enough.

Both organisations criticise the Green Paper for not proposing to make sexual discrimination illegal outside the field of employment.

The National Council for Civil Liberties also attacks the proposals to abolish protective laws for women working in factories.

"The new law," says Mr. Martin Loney, general secretary of NCCLE, "will mainly benefit the middle class women, who are most likely to bring complaints against employers. But working class women will have to pay the price for the Anti-Discrimination law."

E. J. Austin ex-chairman granted bail

Mr. James Kenneth Howarth, 44, former chairman of E. J. Austin (International), was on Saturday remanded until November 26 at Mansion House Court, City of London, charged with conspiracy to defraud creditors.

Bail for Howarth, who will next appear at the Guildhall, was set at two sureties of £10,000 each and his own surety of £5,000, with the condition that he report daily to police. He has already surrendered his passport.

The charge is that between July 1, 1968, and March 31, 1970, in the City of London, County of Chester, and elsewhere he conspired with Wayne Laurence Chambers and others unknown to cheat and defraud the creditors of E. J. Austin Contractors Suppliers, also known as E. J. Austin International, of such money as they could be induced to part with by false representations and other false and fraudulent devices.

ANGLO AMERICAN INDUSTRIAL CORPORATION LIMITED (AMIC)

(Incorporated in the Republic of South Africa)

OFFERS TO SHAREHOLDERS AND DEBENTURE HOLDERS IN FOREST INDUSTRIES AND VENEERS LIMITED (FIV)

AMIC announces that the offer by its wholly-owned subsidiary, S.A. Forest Investments Limited (SAFIL), to acquire the 6 274 500 issued ordinary shares of FIV each in FIV for a cash consideration of 22.7 cents a share, has been accepted by the holders of 5 788 406 shares, equivalent to 82.2 per cent of the issued ordinary share capital of FIV. The offer, which closed on 8th November, 1973, has not been extended and SAFIL will not invoke the provisions of section 103 ter of the South African Companies Act, 1926, as amended, in order to compulsorily acquire the ordinary shares held by non-acceptors of the offer.

As mentioned in the SAFIL offer document, that company also offered to purchase for cash, at par, the 16 027 seven per cent cumulative participating preference shares of FIV each in FIV and the holders of 2 785 preference shares have accepted the offer. In response to the offer made by FIV to purchase the balance of its 1978/1983 and 1985 debenture stocks amounting to R27 912 and R2 887 respectively, all the holders of the 1978/1983 debenture stock accepted the offer whilst acceptances were received in respect of R1 010 of the 1985 debenture stock.

While the acquisition of a majority interest in FIV will result in an improvement in AMIC's earnings, the effect on earnings and net tangible assets per share will not be material.

Johannesburg.
18th November, 1973.

Argyle Securities Limited

Notice is hereby given of the appointment of Lloyds Bank Limited as Registrar.

All correspondence and documents for registration regarding the Share and Stock Register(s) should in future be sent to—

Lloyds Bank Limited,
Registrar's Department,
The Causeway,
Goring-by-Sea,
Worthing,
Sussex, BN12 6DA.

Tel: Worthing 502541 — (STD Code 0905)

N. J. M. Spurrier
Director and Joint Secretary.

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AUTHORISED UNIT TRUSTS (p+++) Yield %

(a) Abscon Arbuthnot Ltd.	(g) The Crescent Group	(i) J.I. Consumer Fund Mgmt.	(k) National Westminster	(m) Selang Unit Trst. Managers Ltd.	(o) Security Selection Ltd.
Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56
Income 37.1 2.56	Income 37.1 2.56	Income 37.1 2.56	Income 37.1 2.56	Income 37.1 2.56	Income 37.1 2.56
Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56
Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56
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OFFSHORE AND OVERSEAS FUNDS (p+++) Yield %

(a) Abscon Arbuthnot Ltd.	(g) The Crescent Group	(i) J.I. Consumer Fund Mgmt.	(k) National Westminster	(m) Selang Unit Trst. Managers Ltd.	(o) Security Selection Ltd.
Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56	Capital 37.1 2.56
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Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56	Dividend 37.1 2.56
Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56	Net Assets 37.1 2.56
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SHARE INFORMATION SERVICE: NOTES

1. Share information service is a service which provides information on the shareholding of companies. It is a service which is available to all companies which are listed on the London Stock Exchange. It is a service which is available to all companies which are listed on the London Stock Exchange. It is a service which is available to all companies which are listed on the London Stock Exchange.

FOREIGN EXCHANGES

Country	Rate	Change
USA	1.00	0.00
Canada	0.75	0.00
Japan	1.00	0.00
Germany	1.00	0.00
France	1.00	0.00
Italy	1.00	0.00
Spain	1.00	0.00
Portugal	1.00	0.00
Greece	1.00	0.00
Belgium	1.00	0.00
Netherlands	1.00	0.00
Sweden	1.00	0.00
Denmark	1.00	0.00
Finland	1.00	0.00
Switzerland	1.00	0.00
Austria	1.00	0.00
Sweden	1.00	0.00
Denmark	1.00	0.00
Finland	1.00	0.00
Switzerland	1.00	0.00
Austria	1.00	0.00

Money & Exchanges

Bank of England Minimum. Lending Rate 13%. Since November 13, 1973, monetary authorities acted to raise interest rates in London money market last week. The bank of England raised its base rate from 11 to 13 per cent. (from 11 to 13 per cent. earlier generally).

10-CURRENCY INTEREST RATES

Country	Rate	Change
USA	1.00	0.00
Canada	0.75	0.00
Japan	1.00	0.00
Germany	1.00	0.00
France	1.00	0.00
Italy	1.00	0.00
Spain	1.00	0.00
Portugal	1.00	0.00
Greece	1.00	0.00
Belgium	1.00	0.00
Netherlands	1.00	0.00
Sweden	1.00	0.00
Denmark	1.00	0.00
Finland	1.00	0.00
Switzerland	1.00	0.00
Austria	1.00	0.00

DAY-TO-DAY CREDIT

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Spain	1.00	0.00
Portugal	1.00	0.00
Greece	1.00	0.00
Belgium	1.00	0.00
Netherlands	1.00	0.00
Sweden	1.00	0.00
Denmark	1.00	0.00
Finland	1.00	0.00
Switzerland	1.00	0.00
Austria	1.00	0.00

INSURANCE, PROPERTY, BONDS

Company	Rate	Change
AAA	1.00	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00

FORTE RAISES STAKE IN COOKS

By Arthur Sandles. TRUST HOUSES FORTE has increased its stake in Cook International (formerly Trust Cook) by purchasing a further 8 per cent. of the stock from the Midland Bank, which is the controlling shareholder. This brings the Trust House stake to 23 per cent. Midland Bank, TRF and the Automobile Association bought Cook from the Government in May 1972.

WEEKLY AVERAGES OF U.K. INDICES

Index	Nov. 18	Nov. 19	Nov. 20
FTSE 100	100.00	100.00	100.00
FTSE 250	100.00	100.00	100.00
FTSE 350	100.00	100.00	100.00
FTSE 450	100.00	100.00	100.00
FTSE 550	100.00	100.00	100.00
FTSE 650	100.00	100.00	100.00
FTSE 750	100.00	100.00	100.00
FTSE 850	100.00	100.00	100.00
FTSE 950	100.00	100.00	100.00
FTSE 1050	100.00	100.00	100.00

UNIT TRUST PRICES

Unit	Price	Change
AAA	1.00	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00

LIFE ASSURANCE

Company	Rate	Change
AAA	1.00	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00

LIFE ASSURANCE

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BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00

LIFE ASSURANCE

Company	Rate	Change
AAA	1.00	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00

LIFE ASSURANCE

Company	Rate	Change
AAA	1.00	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00

LIFE ASSURANCE

Company	Rate	Change
AAA	1.00	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00
BBB	0.75	0.00
BBB+	0.75	0.00
BBB-	0.75	0.00

INTERNATIONAL COMPANY NEWS EURO MARKETS

EUROBONDS

A case of crossed wires

BY DAVID CURRY

LAST WEEK some wires got crossed in the bond market. Two issues ran into trouble almost as soon as they were announced.

The first spot of diplomatic bother arose over the Swiss loan to the City of Birmingham by the Standard and Chartered Bank group. This was at first interest with half repayable after five years and half after six. Birmingham was the first city to take advantage of the facilities restored in the Budget for foreign lending under Treasury guarantee. On this occasion it elected to take the loan without Treasury guarantee to get a lower rate of interest which it reckoned would outweigh any revaluation of the Swiss currency against sterling before the final maturity of the loan.

Immediately after the announcement of the loan the Swiss National Bank made known its

displeasure at the use of the Swiss currency externally as a medium in the capital market, a disquiet no doubt enhanced by the fact that no Swiss bank was involved in the loan.

Quite how formal the protest was is far from clear. The Swiss authorities allowed it to be suggested that their objection went beyond simple pique, while the Bank of England gave the impression that the protest had been a very informal one which it had simply passed on to the bank concerned.

The betting in the City was that the loan would stand since arrangements had been completed and it was a pure banking operation involving no exchange control factors.

The second crossed wire involved the proposed European Coal and Steel Community bond issue. The ECSC was planning to issue \$50m. eight per cent bonds for 15 years through a

syndicate of international banks under the leadership of Banca Commerciale Italiana and S. G. Warburg and Co. The issue was announced under the impression that the Italian authorities would extend the same privileges to the issue as to the recent dollar issue of the European Investment Bank.

When the Italian monetary authorities decided not to exempt the issue from the 50 per cent non-interest-paying deposit rule applied to Italian foreign investments the issue was called off since the non-participation of Italian investors knocked out one of the central pillars of the syndicate.

Guardian of the Euro markets fell sharply in the third quarter of this year to a total of \$310m. compared with \$255m. in the previous quarter and \$1,334m. in the first quarter of 1973 according to the Federation Bancaire of the Common Market.

Volvo sales show 20% rise

AFTER A 30 per cent increase in sales in the third quarter Volvo reports that figures for the first nine months of the current year "indicate a favourable trend."

Third quarter sales totalled Sw.Kr.2,247m. bringing sales for the nine months' period up to Sw.Kr.6,421m. which represents a 23 per cent increase on the Sw.Kr.5,215m. achieved at the same stage last year. Group income before allocations and taxes rose to Sw.Kr.702m. in the first nine months of this year from Sw.Kr.518m. in the same period of 1972. This represents 10.9 per cent of sales, against 9.9 per cent last year. Adjusted income before allocations and taxes rose to Sw.Kr.26.40m. compared with Sw.Kr.20.30m. in the first nine months of 1972.

Volvo says that there has been a good demand so far this year for all product categories and major markets indicating higher sales figures than during the first nine months of last year. The sales increase in Sweden amounted to 20 per cent, while the growth outside the domestic market was 25 per cent, with sales abroad accounting for 70 per cent of group sales. Production and material supplies encountered no major disturbances, although material prices have continued to increase.

Car sales amounted to Sw.Kr.1,269m. in the third quarter, an increase of 13 per cent on the same 1972 quarter. Car sales so far this year now show a rise of 30 per cent compared with 1972 at Sw.Kr.3,667m.

The sales of trucks and buses increased during the third quarter and over the nine months period by 20 per cent to Sw.Kr.486m. and Sw.Kr.1,390m. respectively, while sales of marine and industrial engines rose by 17 per cent in the third quarter to Sw.Kr.101m. and by 23 per cent over the longer period to Sw.Kr.307m. There was an increase of 15 per cent to Sw.Kr.265m. in construction, forestry and agricultural machinery during the third quarter, bringing nine months sales up by 23 per cent to Sw.Kr.692m.

HIGHER PROFITS FROM CANON

TOKYO, Nov. 18. CANON EXPECTS to report a rise in net profits to over ¥1,000m. in the six months ending December 31, from ¥790m. in the preceding period, according to director Ryuzaburo Kaku. Net sales would total ¥31,000m. (¥27,527m.), and the company would declare an unchanged ¥3 dividend.

AUSTRALIAN WEEKLY LIST

Company	Nov. 16	Nov. 9
Adelaide Newsprint	1.21	2.27
Adelaide Television	1.21	2.27
Adelaide Newspapers	1.21	2.27
Adelaide Television	1.21	2.27
Adelaide Newspapers	1.21	2.27
Adelaide Television	1.21	2.27
Adelaide Newspapers	1.21	2.27
Adelaide Television	1.21	2.27
Adelaide Newspapers	1.21	2.27
Adelaide Television	1.21	2.27

TEL AVIV STOCK EXCHANGE

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27

Hochtief sees gloom ahead

HOCHTIEF, ONE of West Germany's leading construction companies, expects results for the current year to be satisfactory. But the downturn in domestic building, coupled with increased competition in export markets, will affect those of 1974, the company warns.

Building output rose 10 per cent to DM1,500m. in the first nine months of the current year, compared with the same 1972 period. This includes an 11 per cent rise to DM1,300m. on the domestic market.

But demand has since weakened considerably and Hochtief says the growth rate will slow in the remaining months of 1973. Orders in hand at the end of September were five per cent higher than at the same stage last year at DM2,310m.

In 1972 group net profits totalled DM1,19m. on gross turnover of DM11,130m., compared with profits of DM871m. on turnover of DM9,300m. in 1971.

INVESTMENT 9 premium based on 3.50 per cent (35%) conversion factor (7.95%)

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
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Bank Leumi	1.21	2.27

CANADA

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
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Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27

STOCKHOLM

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
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Bank Leumi	1.21	2.27

JOHANNESBURG

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
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INDUSTRIALS

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
Bank Leumi	1.21	2.27
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CANADIAN WEEKLY LIST

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
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PARIS

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
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MILAN

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
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TOKYO

Company	Nov. 16	Nov. 9
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COPENHAGEN

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
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OSLO

Company	Nov. 16	Nov. 9
Bank Leumi	1.21	2.27
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AUSTRALIA

Company	Nov. 16	Nov. 9
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INDUSTRIALS

Company	Nov. 16	Nov. 9
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CANADIAN WEEKLY LIST

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PARIS

Company	Nov. 16	Nov. 9
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OSLO

Company	Nov. 16	Nov. 9
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INDICES

NEW YORK

DOW JONES AVERAGES

Index	Nov. 16	Nov. 9
Dow Jones Industrial	1,210.10	1,210.10
Dow Jones Industrial	1,210.10	1,210.10
Dow Jones Industrial	1,210.10	1,210.10
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STOCK AND BOND YIELDS

Nov. 16, 1973

Nov. 9, 1973

Nov. 16, 1973

Nov. 9, 1973

Nov. 16, 1973

Nov. 9, 1973

Nov. 16, 1973

Nov. 9, 1973

Nov. 16, 1973

Nov. 9, 1973

Nov. 16, 1973

The State of Georgia

FINANCIAL TIMES SURVEY

Prosperity in the South

NICHOLAS COLCHESTER, U.S. Staff

expression "The New South" has now been in circulation in America for over a century. Ever since the War it has been coined as a statement of the tenacious and social prominence during phases of economic recession. It has triumphantly resurrected the old of rising income and a new liberal sentiment.

We find a bustling of activity in the old Congressmen from the in Washington. We learn Atlanta, the capital of a, has just elected a mayor, and so we hear South that is as new as

a whole history of the may be summed up in a sentence," wrote an at New York journalist 3, "She was rich and she was poor; she was set in bondage; she was set and she had to go to work and she was richer than ever before." act that this summary good to-day and was written years ago is a reminder South has not streaked the rest of the U.S. but is catching up fast from the mire of wretched disage.

1919 Georgia's share of U.S. national income was 3.5 per cent. It was not until after recovering from the vices of the Great Depression that it saw even that significant proportion again. 20 years after 1950, the environment in the "Sunbelt" has

Training camps

Georgia's economy reached its nadir, relative to the rest of the country, just before the outbreak of World War II. During the war it was, almost literally, mobilised back to prosperity. With the establishment of training camps a large number of Georgians came on military payrolls. At the same time the urgencies of war brought aircraft and other forms of military production to the State and provided an important seed for civilian manufacturing industry. Between 1940 and 1950 Georgia's personal income rose 240 per cent, and by 1950 only 28 per cent of Georgians were on the farm whereas half of them had been farm workers at the onset of the depression.

The post-war period of the 1950s saw consolidation and then another rapid phase of growth in the 1960s which coincided with growth in the U.S. economy as a whole. As in the rest of the South, an extraordinary important factor in the post-war economic recovery of Georgia was the spread of air-conditioning. This changed the

from one of overall lethargy to something nearer the modern ideal of cool work and warm leisure.

As the South as a whole moved to catch up with the rest of America in economic terms Georgia was assured, because of its position, of an opportunity to share in the growth of the area. The position of its capital city, Atlanta, was decided almost arbitrarily in the 1830s when it was the intersection of two developing railway networks, and the city was in fact called Terminus in its early years. The accident was the seed of multiplying importance for the city. The roads converged with the railroads and Atlanta is a crossroads for the U.S. Interstate highway system. Since the war the city has become the major point of convergence for air transport in the South East.

Georgia has its eastern flank on the Atlantic, Florida to the south and Alabama stretching up the whole of its western flank. Tennessee and North Carolina share its northern boundary, while South Carolina cuts across its north-eastern corner. The State thus has five developing neighbours ringed around it in a three-quarter circle, while it has access to the Atlantic directly and to the Gulf of Mexico via a deep-water canal running up its western frontier. The leading Georgian non-port on the Atlantic is Savannah, where the British founded Georgia in 1733 to service industries. The State has had a textile industry for form's buffer between Carolina and Spanish Florida, and so some time as a result of a

Savannah lies on a very marketable stretch of coastline warmed by the same Gulf Stream that has brought wealth to the coast of Florida.

The interior of Georgia is divided—like Caesar's Gaul—into three parts: the mountains in the north which are largely wilderness; the Piedmont plateau, with Atlanta at its head, which contains the bulk of Georgia's industry; and the still largely rural coastal plains.

The decline in Georgia's agricultural population is now virtually complete, with the proportion of people on the farms only a little above that for the U.S. as a whole. Moreover, the agricultural sector is well diversified away from the cotton crop on which everything and everyone once depended. The strides made by Georgia's agriculture are illustrated by the fact that in the 30 years since 1940, Georgia's cash income from farm produce has risen 600 per cent, while its farm workforce has declined by 80 per cent. This statistic is perhaps the most dramatic illustration of Georgia's climb back to prosperity. Poultry, eggs and peanuts now dominate Georgia's agricultural output, while cotton and cotton seed account for only three per cent.

Service industries

To match the growth in the agricultural population there has been expansion in Georgia's manufacturing and service industries. The State economy has achieved a good measure of diversification. State planners are anxious to encourage more high-technology

the North East in the first half of this century. The New England textile industry found itself undermined in price by foreign competition and had simultaneously to face up to unionisation. It sidestepped the problem by moving South where cheap and unorganised labour was still available. As a result Georgia is one of the leading producers of clothing and textiles in the U.S. and the centre of the nation's output of tufted carpet. This industry is centred round Dalton, north west of Atlanta.

Georgia's two most sophisticated industries are paper manufacture and transport equipment. It is the leading State in the manufacture of paper, to which its plentiful timber and adequate water supplies make it well suited, and one of the largest in the manufacture of transportation equipment. Ford and General Motors have assembly plants in the State, and Lockheed Aircraft has an important aircraft plant at Marietta—though one whose employment has recently been slashed because of the lean times faced by the aircraft industry and by Lockheed in particular.

The other mainstay of Georgia's non-agricultural economy is the food processing industry, and particularly the processing of chicken. Of the total value added content of Georgia's industry the food industry ranks second to textiles. While the Georgian economy has achieved a good measure of diversification, State planners are anxious to encourage more high-technology



industries to establish themselves there. They are aware that much of the State's non-agricultural income is related to service, processing or manufacturing industries that do not hold out the prospect of high salaries.

Georgia has over the last three years acquired an image as one of the more socially and politically progressive States in the South. This reputation is to some extent a spin-off from the rise of Atlanta, whose new wealth and new cosmopolitan and liberal atmosphere has rubbed off on the State of which it is the capital.

In reality the old conservatism still holds sway over much of Georgia and the disparities between the Whites, who represent 75 per cent of the population, and the Blacks remain as Georgian as ever. Senators Talmadge and Nunn have solidly conservative voting records. Lester Maddox, now Lieutenant Governor after his notable spell as Governor, stands a good, if diminishing, chance of being re-elected to the governorship at the next election.

Georgia rule that no Governor ever from the deep South shall serve two consecutive terms. Lester Maddox, while no compromised quite successfully part of the old political order and strictly a hard-hat populist of the George Wallace type, is over the "bussing" of school children to help integration, while at the same time streamlining State Government from 300 agencies to 23.

Georgia has not suffered the racial violence that has broken out elsewhere in America in recent years and it is possible that if these gradual political improvements continue such violence may forever be avoided. Coming up strongly from behind, Georgia has at least the opportunity to avoid the miseries that have crystallised in Harlem and in Newark. It is a State with vast space for its population. It is a State with a climate that technology has made almost desirable. It has variety in its scenery and the chance to protect that scenery for ever. If it can remove the stigma of the past it could well become one of the best places to live in the U.S.

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GEORGIA II

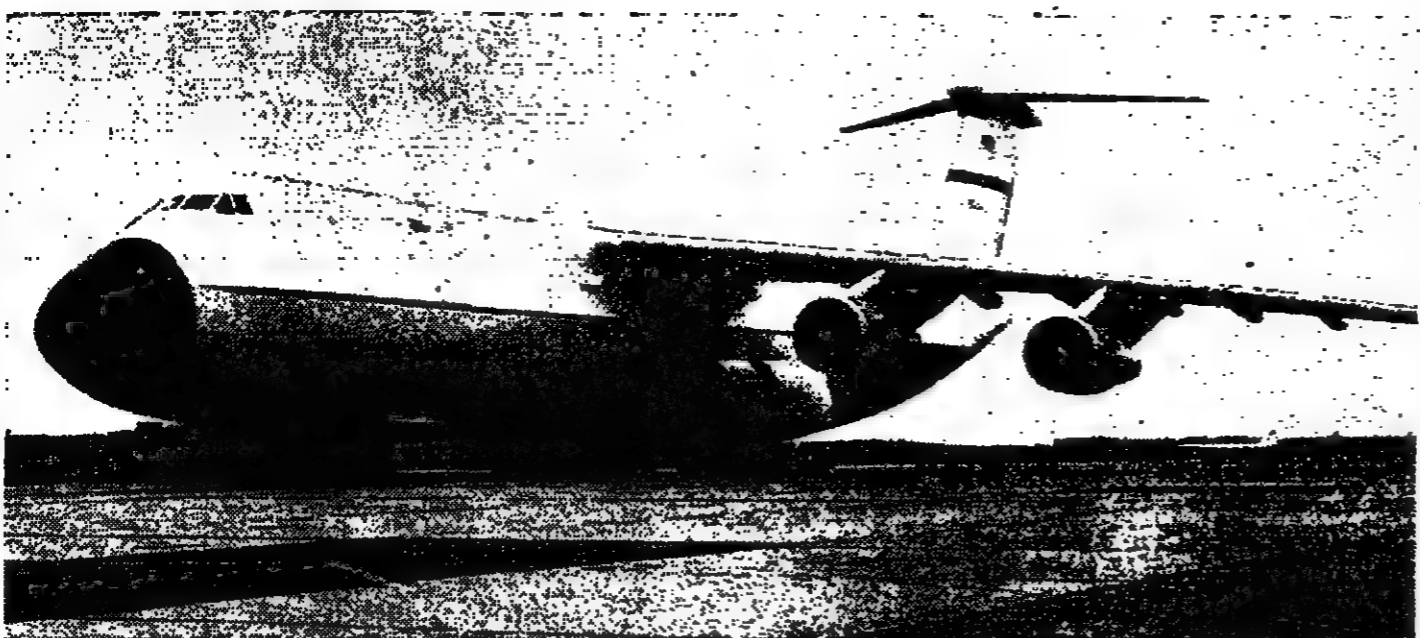
Industrial schemes overcome old prejudices

By NICHOLAS COLCHESTER

On November 5 last the State of Georgia opened an office in Brussels whose function it is to present Georgia to Europe and to bring European industry to Georgia. Although the State's ports authority has been represented abroad for some time, the Brussels operation is Georgia's first effort at creating a shop window for itself in an overseas market. The move is symptomatic of the sudden shift that has taken place in America's business relationship with the rest of the world, and also of Georgia's continuing aspiration to develop itself to a position of industrial equality with the rest of the U.S. instead of the rural inferiority that has been its lot for much of the last 100 years.

Lagged behind

"We have got to manufacture to save ourselves," wrote the editor of a long-defunct Southern magazine called DeBow's Review over a hundred years ago. To-day the leaders of Georgia's industrial development continue to say the same thing. For most of this century Georgia's per capita income has lagged behind the national average by between \$500 and \$600 a year. It lags by \$600 to-day, and while this disparity is consistent with an important im-



The U.S. Air Force's giant Galaxy C-5 cargo carrier, a product of Lockheed-Georgia Company.

provement in Georgia's relative wealth in percentage terms, it lags at State planners who are eager to see Georgia as a State with its U.S. manufacturing base. Such a plant would represent exactly the high technology overtaken the number on the investment in which Southern farms in 1952, some six years before this ratio was achieved by the South as a whole. To-day, the worry of the State planners is no longer agrarian concentration as much as the

ing workforce of 454,000. The main high technology employment is found in the transport equipment industry — largely Lockheed Aircraft, General Motors and Ford — and the paper industry whose main employer is Union Camp. The State agency for community development wants to widen this roster to raise the State's income level, to bring the security of diversification, and to shift the wealth of Georgia back into the rural areas from which it flowed when the labourers quit the fields for the cities.

Leaving aside for the moment the question marks hanging over this drive for wealth through greater industrial sophistication, the important point for a European company eyeing the U.S. as a possible manufacturing centre is that the drive exists: if a European company approaches the State of Georgia it will find itself wanted. General Truman, who heads the Department of Community Development, makes it clear that his staff will swing into action to guide an interested company towards the site with the labour and natural resources best suited to its needs.

The State's most important effort on a foreign company's behalf will be in the area of workforce education. Georgia will offer to train the labour

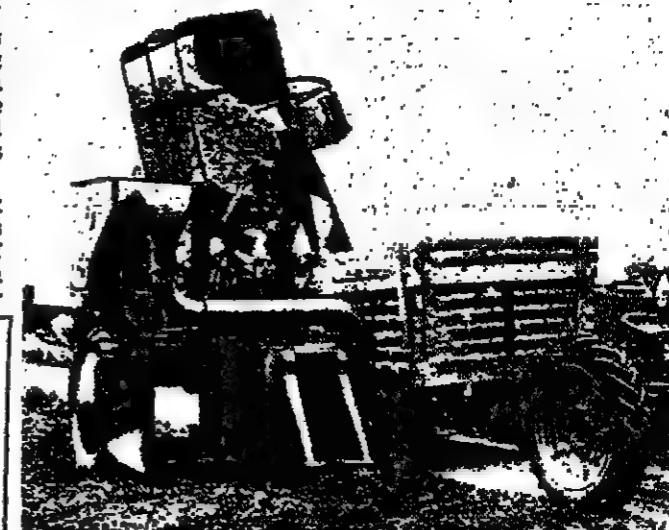
required by an overseas company free of charge and to the company's specifications. Moreover, if the proper instructors and supervisors are not available in Georgia, the State will pay to bring over foremen from the company's home operations to train the new labour. The Department of Community Development says that this educational subsidy will continue after the plant has opened until the immigrant company is happy with the quality of its workforce.

The existing force of competent labour in Georgia is described as "adequate" by General Truman, while in other places it is in tight supply. The fact is that foreign companies are being wooed to Georgia precisely to provide a healthy demand for skilled labour that will stimulate education in the State. The

foreign newcomer will not take the risk of staking investment on the effectiveness of a green labour force and will be rewarded with a lower wage bill and with a less pervasive union power structure. To Community Development officials are quick to point out that Georgia was one of the first States to pass a "right to work" law which insists that a worker cannot be coerced into joining or obeying a union in order to be able to work in particular industry.

New image

Georgia also has the advantage that it has recently become a State to which Americans are happy to move, the new image of Atlanta is an important factor here.
Continued on next page



The cotton harvest no longer plays the dominant role it once did. The crop now accounts for about 3 per cent. of farm output.

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Georgia's favorable business climate encourages international trade. Foreign banks, six consulates and headquarters for twenty-two international companies are located here. Tax-free revenue bonds are available for industrial financing. And Georgia will even train your labor force free.

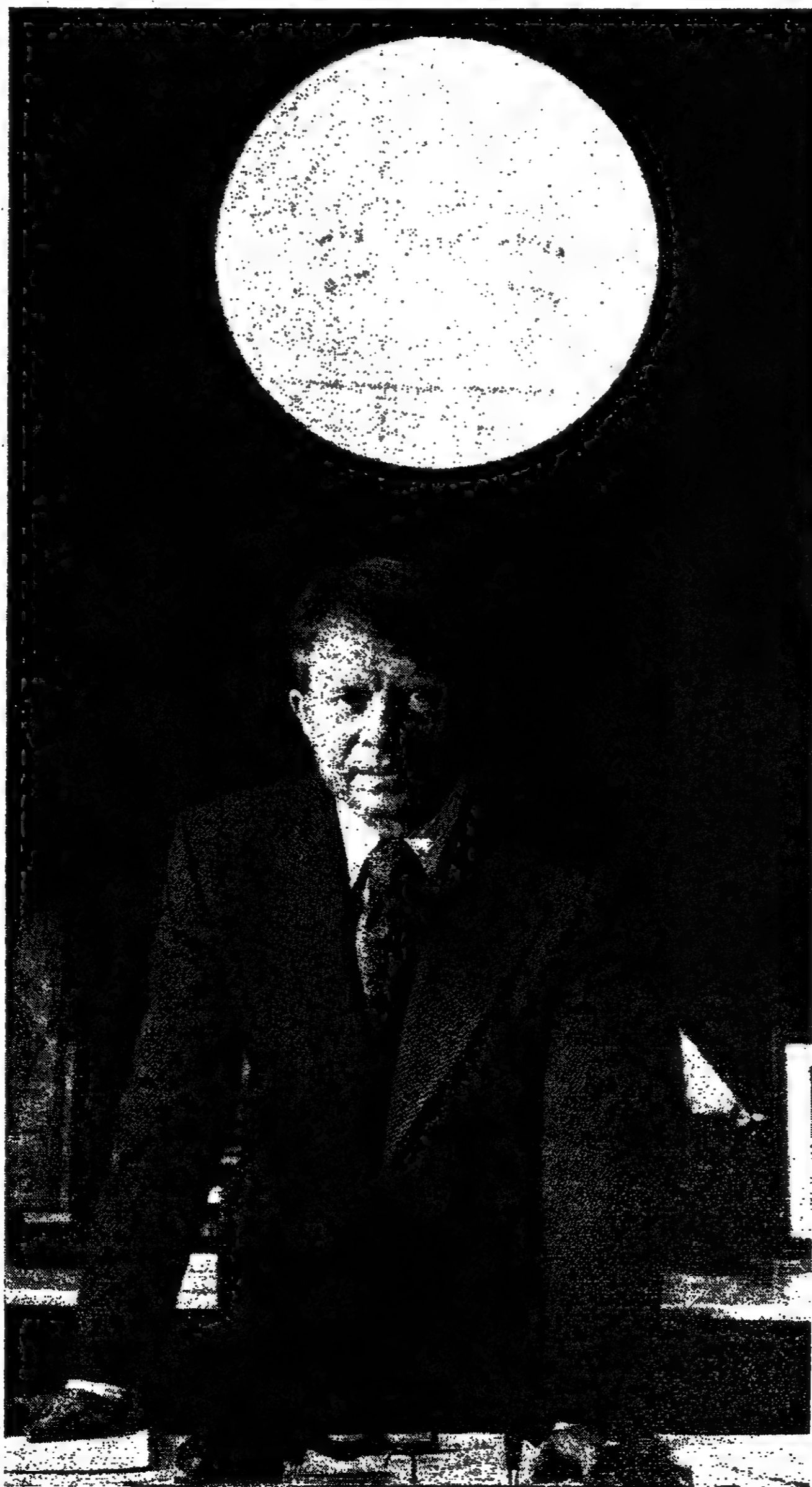
Georgia's transportation and distribution facilities provide global accessibility. The nation's second busiest air terminal and two deepwater ports ship anywhere in the world. And extensive rail and motor carriers provide quick delivery within the nation.

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Expansion in the ports

By NICHOLAS COLCHESTER

The State of Georgia's strength as a trade centre is greatly increased by its two deepwater ports on the Atlantic Ocean and by the three barge terminals at Augusta in the north-east, Grainbridge in the south-west, and Columbus half way up the State's western flank.

The shape of the North American coastline is such that both Savannah and Brunswick, the two Atlantic ports, are in a position to provide economical service to more than just the U.S.'s south-eastern corner. Set at the base of a convexity in the coastline they are as far west as any North Atlantic ports can be. In fact Savannah is no further from Chicago than New York is, with the three lying roughly on an equilateral triangle.

Savannah is the pride of Georgia's ports and also one of its loveliest cities—a double incentive for an overseas company thinking of setting up a manufacturing or distribution centre on the eastern seaboard.

Some way to run.

Since 1970 the port has been going through a remarkable period of expansion that continues to-day and still has some way to run. In early 1972 the port opened a \$5m. container handling facility incorporating the largest container crane in the U.S. and storage space for 3,600 40-foot containers. Early in 1974 another facility of equal size will open, and beyond that there is a \$60m. five-year plan to build three more container terminals at \$8m.-\$10m. each, to renovate the port's older facilities and to add to its bulk-handling capacity.

In 1971 the port opened a \$9m. bulk handling terminal of advanced design. It provides covered storage for 18 stacks of dry bulk products or raw material, with a stack size ranging from 2,500 to 8,000 tons. Each stack can be of a different product and yet can be handled by the same ship, truck and railroad loading and unloading system.

Besides these facilities there is a lighter-aboard ship (lash) system in operation and a total of 58 berths under State and private control and serving a wide variety of cargoes.

El Paso Natural Gas of Texas and the Southern Natural Gas Company have selected Savannah as the site for the landing of foreign liquid natural gas in the south east. The LNG unloading terminal will be completed on the island of Elba in the Savannah River about four miles downstream from Savannah and 14 miles up river from the Atlantic. It will be built at a cost of \$60m. for the terminal plus another \$20m. for associated pipelines. Around seven liquid natural gas ships will unload per month, bringing gas in at a rate equivalent to 350m. cubic feet of gas a day. The port tonnage of Savannah

Full facilities

Complementing the expansion at Savannah is the Georgia Authority's programme to expand the network of barge piers on inland waterways. A bridge now has full facilities for handling and storing commodities brought up from the Gulf of Mexico by barge. Further north, Columbus recently been developed into an efficient barge terminal and a particularly heavy through of petroleum products. Augu be built at a cost of \$60m. for the terminal plus another \$20m. for associated pipelines. Around seven liquid natural gas ships will unload per month, bringing gas in at a rate equivalent to 350m. cubic feet of gas a day. The port tonnage of Savannah

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GEORGIA III

Racial division dominates political scene

OM BETHELL

Georgia's gold-domed state capitol and Atlanta's City Hall are only two hundred yards apart but it is a measure of the racial division in Georgia politics that the office of the Governor is occupied by a Jew, soon to be replaced by a black attorney, the nearby Governor's office is occupied by a peanut farmer who may be replaced by an overt segregationist.

At one third of the state's population live in the metropolitan area of Atlanta, and the rest live within the city are about evenly divided between black and white. (There are slightly more blacks, but more whites registered.) As a result of this division, when Atlanta's polls last month a black lawyer, Maynard Jackson, was elected with 53 per cent of the vote. He is the first black mayor of a southern city. Voting heavily along racial lines, 51 per cent of the blacks for Jackson. But incumbent Mayor Sam Massell only got 47 per cent of the vote, and so he lost.

Many who fled the city to avoid paying city taxes, and to avoid the city's facilities in the day. Thus Atlanta's tax base is shrinking. But the city is not alone. In other Deep South states, although it has been in border states). The Governor, both Senators and both houses of the State Legislature are Democratic. In the U.S. House of Representatives, Georgia's Democratic contingent increased from 8 to 9 (out of 10) in the 1972 election. Only in the presidential election, it seems, does the electorate not vote Democratic. In '74 and '72 a majority of Georgians voted for the Republican presidential candidates, but it would not be safe to predict that this will happen again in 1976.

concentration of blacks in Atlanta also resulted in the last November, of the black Congressmen from Deep South since Reconstruction days. He was the Rev. W. Young, and when the were counted in Georgia's Congressional District, he

had won with 53 per cent of the vote. This was a considerable achievement, since the district was 60 per cent white. George McGovern was no great help, and in the period preceding the election the courts ordered further school desegregation by busing in the district. Reverend Young replaced a conservative Republican in Congress.

State-wide, 25 per cent of Georgia's population is black, and this percentage has been slowly decreasing over the years as blacks have left rural areas where jobs are dwindling, in search of urban employment further north. (With Atlanta itself now seen as perhaps the most propitious city in the U.S. for blacks, this north-bound emigration has almost surely stopped now.) But because of continued voter registration drives—and the most effective civil rights organisations pursuing this goal are themselves based in Atlanta—black candidates have continued to prevail at the polls, although not yet in proportion to their numbers. In the 1972 elections 83 blacks were voted into office in Georgia. In addition to Rev. Young, they included two state senators, and 14 state representatives.

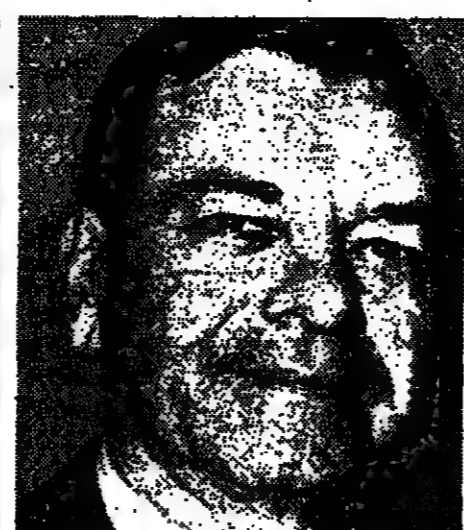
All of this is probably not very good news for Lieutenant Governor Lester Maddox, the former restaurant owner who attained notoriety by chasing away blacks who wanted to eat there, but, at the same time, a black years back. Brandishing pick handles and segregationist slogans, he was elected Governor of Georgia in 1966, and later became Lieutenant Governor, because in Georgia the Governor cannot succeed himself. After Maynard Jackson's recent victory at the polls, Lester Maddox declared that he was "still a segregationist." And he added to newsmen: "I've told you that 15 times. When are you going to start believing me?"

Dwindling audience

It is not hard to believe him, considering that he sells pick handles from his shop in Underwood Atlanta, and hands out segregationist literature from his Capitol office. He always has a stack of "The Augusta Courier" available for callers.



Maynard Jackson, the first black Mayor of Atlanta, who was elected to office last month.



Senator Herman Talmadge, a member of the Watergate Committee and a previous State Governor.



Lieutenant-Governor Lester Maddox, a previous Governor and a candidate for the post in next year's elections.

For 25 years this publication has been put out by Roy V. Maddox has no strong rivals for the position occupied by Governor Jimmy Carter, the former peanut farmer. Discussing next year's race, a spokesman in Carter's office said that he thought there were, besides Maddox, three probable starters, none of whom is at all well known outside Georgia. The opening over 100 centres for retarded children and equalising the educational opportunities for children in rich and poor areas.

At the moment, however, the position occupied by Governor Jimmy Carter, the former peanut farmer. Discussing next year's race, a spokesman in Carter's office said that he thought there were, besides Maddox, three probable starters, none of whom is at all well known outside Georgia. The opening over 100 centres for retarded children and equalising the educational opportunities for children in rich and poor areas.

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and possibly a power, at the 1976 Democratic National Convention.

One possibility open to Carter would be to run for the U.S. Senate, since a Georgia seat falls vacant next year. But, as it happens, that seat is occupied by Senator Herman Talmadge, and the chances are that nobody is going to beat Talmadge next year, so Carter is most unlikely to try. Part of the reason for Talmadge's unassailable position is that his name is as familiar in Georgia politics as Long is in Louisiana. Talmadge's father was Governor for a long time, and at his death Herman succeeded him. (His right to do so was more dynastic than constitutional, some felt.) In addition, Talmadge has accumulated 17 years of seniority in the Senate; he is chairman of the Agriculture Committee, and has an important place in the Finance Committee.

The most important reason for Talmadge's current strength, however, is Watergate. He has been a member of the Watergate Committee interrogating White House aides and others throughout the summer, and in that capacity has obtained a good deal of free television exposure. What is more, along with Senators Ervin and Baker, the other southern senators on the committee, Talmadge proved himself to be an adept and forceful interrogator, better able to elicit responses from recalcitrant officials than his counterparts from the "liberal" parts of the country. (National opinion makers, who had stereotyped

One-party system

Amid all the chance surrounding politics in Georgia, one constant has been the prevalence of the one party system. There has been much talk, although less evidence, of a Republican resurgence in the South, but this has not been evident in Georgia (nor, in fact, in other Deep South states, although it has been in border states). The Governor, both Senators and both houses of the State Legislature are Democratic. In the U.S. House of Representatives, Georgia's Democratic contingent increased from 8 to 9 (out of 10) in the 1972 election. Only in the presidential election, it seems, does the electorate not vote Democratic. In '74 and '72 a majority of Georgians voted for the Republican presidential candidates, but it would not be safe to predict that this will happen again in 1976.

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Industrial

of the sixties was the since reconstruction there was a net immigration into Georgia. This led to 1.5 per cent of the population. Added to this, the distribution of the population presages a increase in the number of people seeking work over the next five years.

Terms of mineral wealth is rather hard done by its important resources and in the main to talc, and phosphates. Standing the State has in profound it is well provided with Oil and coal must be it in from the immediate Because transport is a's forte there is no draw for most manufacturing ries but does hinder the shipment of energy-intensive industries such as dum or steel. Natural gas be imported from Texas, hile this is an important ldeily distributed fuel in it seems that supplies ten sufficiently limited to J.S. chemical giants from shing themselves around a. This situation will be ed when the South East's d natural gas terminal is icted at Savannah. In f distribution the chemi-stry would seem to be li fitted to the State.

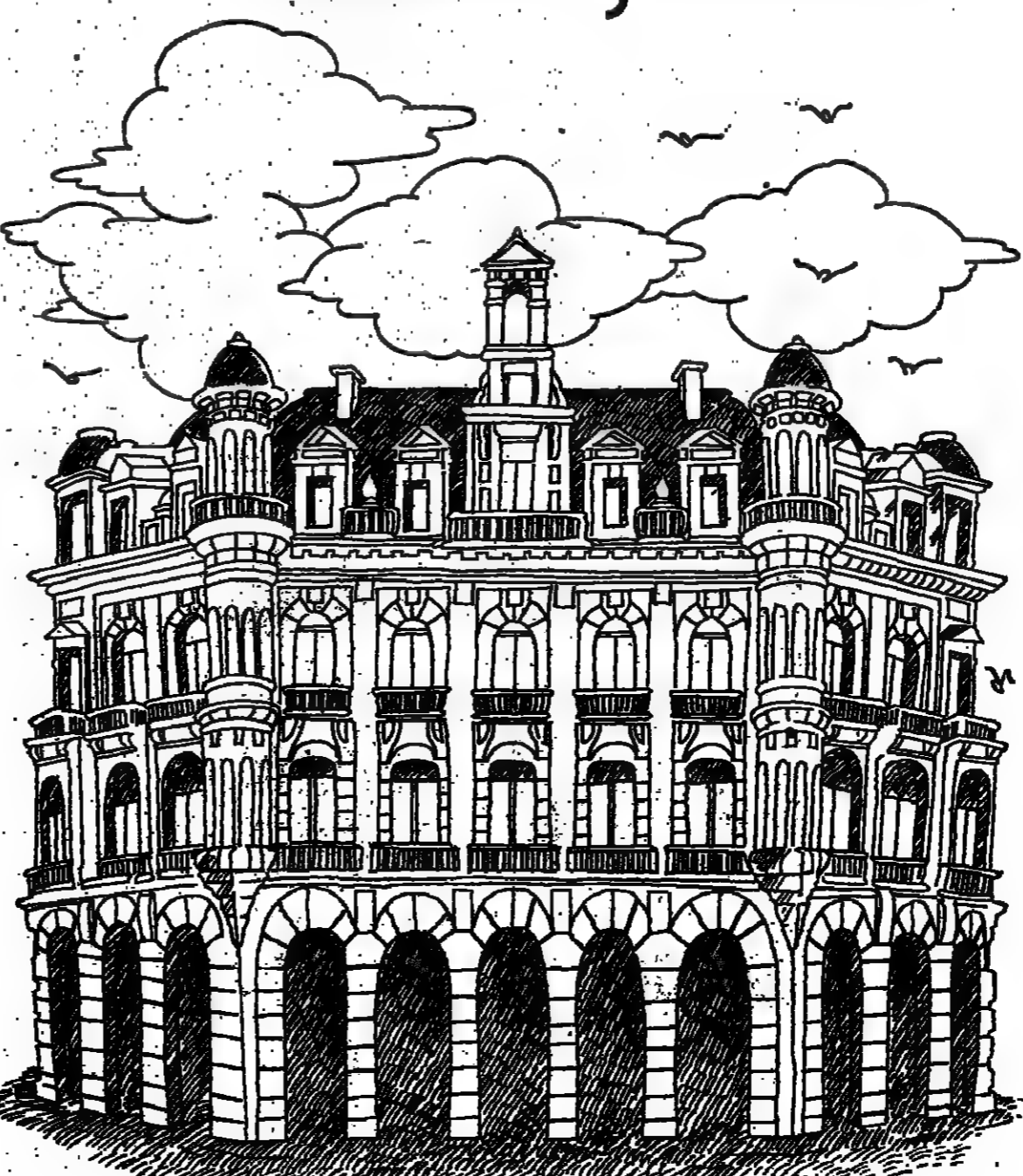
position of Georgia as the of the South East with to the sea and with road, f air transport stretching e American hinterland of the State's most int attributes. The State d increasing attention to blem of financing foreign ent. The Georgia Busi-velopment Corporation en established to make ction loans, and the cities and counties are owered to issue tax-free ; anticipation bonds for ial development. Atlanta anking and insurance for the South East and home of the regional Reserve Bank. The ; industry, while still g by national standards, en modernising itself over the last few years First National Bank of has just announced r Georgia's first banking n London, England. cessful drive by Georgia h technology industry yond its borders would ably have the desired on the statistics of s wealth. But the out-observers cannot but that it is not only the level but also the distri-

but of Georgia's per capita income that is in need of adjustment. The latest estimates indicate that the average Black worker gets half the pay of the average White worker. According to the latest statistics some 18 per cent of Georgia's families remain below the poverty line, a figure which puts Georgia firmly at the bottom end of the U.S. league table in this respect. It is arguable that any sort of non-agricultural employment, let alone highly automated car assembly plants or refineries, would have an important impact on the wealth statistics if it were established in those rural areas where the history of the South is still so manifest.

A community action group recently conducted an experiment whose results appear pertinent. A 12-county rural area in Georgia was selected and then canvassed for unemployment by 120 field workers working from temporary booths. Some 5,000 registered themselves as unemployed, a high proportion of them Black, and submitted details about themselves and whatever skills they had. The tax force then contacted the local employers and within a year 30 per cent of the unemployed had jobs and a further 18 per cent were in training of some sort. There are some obvious lessons.

At the same time it is a little ironical that the South is making such an effort to gear itself up industrially at a time when the creed of strength-through-science has become less fashionable in other areas of the U.S. The States of Oregon and Colorado have become less enthusiastic about development for development's sake and more covetous of their wilderness. Seattle, in the State of Washington, learnt a grim lesson on the fruits of technology with the recent severe recession in the aerospace industry, on which so much of its prosperity depends. These ironies provide food for thought for Georgia's administration but are no deterrent to the foreign company considering Georgia as its first foothold in the U.S. Georgia's problems are the newcomers' opportunities because they are not problems of decay but rather those of growth. Spreading out from Atlanta, there is an infectious spirit of energy and enthusiasm that can be harnessed to push through progressive schemes in the face of the old vested interests and prejudices that remain.

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GEORGIA IV

The soaring reputation of Atlanta

By NICHOLAS COLCHESTER

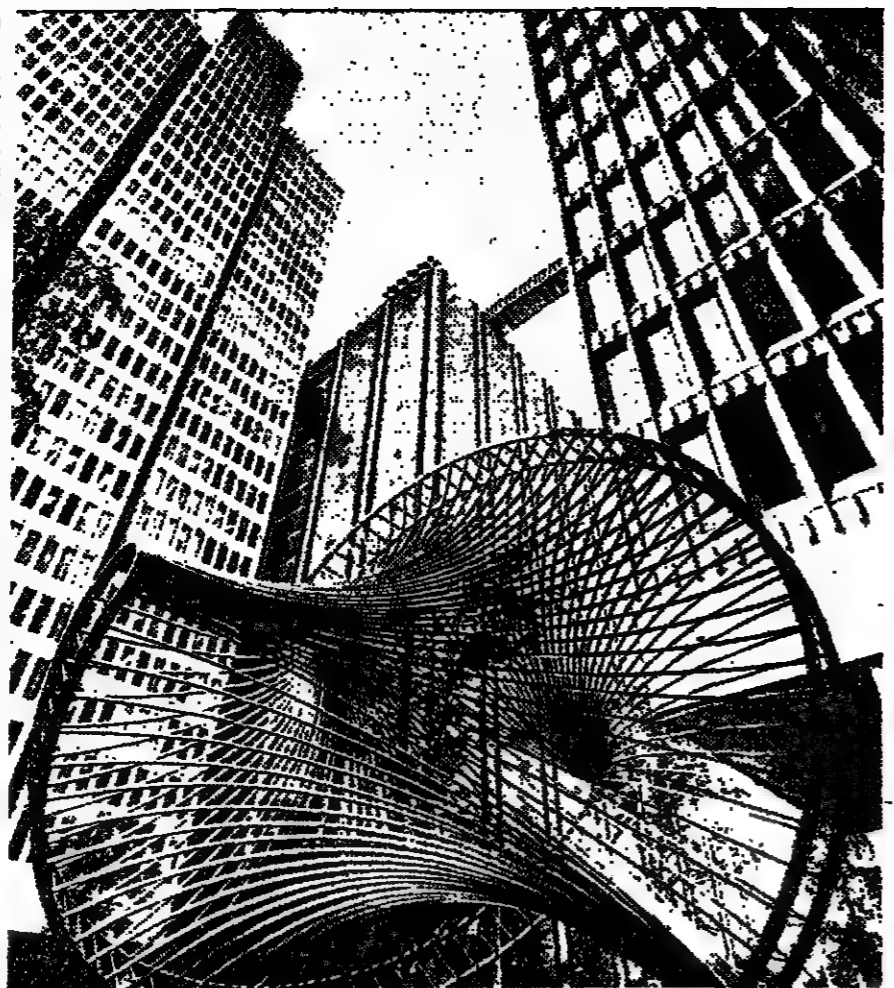
A little over 100 years ago Atlanta lay in ruins as General Sherman led his Union army in a campaign of destruction towards Savannah and the sea. In 1883 the Atlanta Constitution, then establishing itself as one of the most influential newspapers in America, reported the speech of an Atlanta farmer before the Agricultural Society. "Get rich," said the speaker, "poverty may do to go to Heaven with, but in this modern time, get rich and emigrants will pour in: capitalists will invest."

The skyline of modern Atlanta is eloquent of those capitalists. Approached from the airport the city looks more Mid-Western than Southern. There is the same bundle of sky-scrappers, rising where they do for no apparent reason, gift-wrapped in superhighway and served up to prosperity. This sameness fades on closer inspection because there is more imagination in the architecture. It vanishes at night because there are people in the downtown streets at a time when Houston or St. Louis would be lonely places.

The reputation of Atlanta has now spread across the U.S. as something of an emerging San Francisco. It is the business capital of the Deep South and yet it has become a Mecca for Blacks. The State of which it is capital is poor in national terms but it exudes affluence. Its advertising slogan proclaims "Atlanta, the world's next great city." None of history's great cities have had greatness so thrust upon them, but Atlantans seem determined to succeed. One city official remarked that "people who live here root for this city like a football squad."

The city has a population of 480,000 in the middle of a metropolitan area of 1.5m. people. Ten years ago the population of the metropolitan area was 1m.—while the city itself was roughly the same size. In that span per capita income doubled, bank deposits and retail sales in the metropolitan area tripled, expenditure of convention delegates tripled to \$80m. In 1972. The annual investment in new construction went up by over four times to \$852m.

This phenomenal growth was the result of the confluence of corporate power and the power of the city government. The relationship between City Hall and big business was put onto a solid footing by Mayor Hartsfield who



Early Mace, a stainless steel sculpture by Charles O. Perry, which stands in the Peachtree Center in downtown Atlanta. The Center is a \$100m. office, hotel, commercial and entertainment complex. The sculpture, which weighs one ton, was constructed in Italy.

held sway for 25 years till 1961 when he died. He was succeeded by Mayor Ivan Allen who resigned from being President of the Atlanta Chamber of Commerce to serve eight years as mayor of the city. For this eight-year stretch the interests of big business and city government were essentially one and the city was ruled by a business oligarchy which, to judge by the results, combined commercial drive with a surprising degree of enlightenment.

The protagonists in this campaign to establish Atlanta as more than just another regional centre were Mr. Mills Lane of the C and S Bank, Mr. Edward Smith of the First National Bank of Atlanta, Mr. Jack Carver, owner of the two Atlanta newspapers and Mr. Robert Woodruff of the Coca-Cola Company, the most prestigious of the

corporations that are headquartered in Atlanta. These and others were the cabal behind the Chamber of Commerce which in 1962 started a programme called "Forward Atlanta." This was designed to promote Atlanta across the country and to plan the capital's development.

Black Mayor

In the mayoral election of 1968 Atlanta's big businessmen backed the wrong horse and Mayor Sam Massell was elected on a combination of liberal White and Black support. Martin Luther King, who had organised his civil rights movement from Atlanta, was dead, but under his aura and during that time of Black bitterness across the rest of the country

the coloured citizens of Atlanta, who now account for over half of the vote, began to make their presence felt in city politics. Today they have a Black Mayor, the young Maynard Jackson. They have a city council that is half-coloured: they have a Black congressman in Washington, Mr. Andrew Young. They have a city that is thought to provide the best urban living for coloured people in the U.S. They have a Black big businessman in Jesse Hill, President of the Atlanta Life Insurance Company and an important ambassador to a white big business clique that is providing its new city government with full and perhaps slightly nervous co-operation.

The most obvious outward sign of Atlanta's present prosperity is the extraordinary



The spectacular lobby of the Hyatt Regency Atlanta Hotel, which rises 23 floors in height, has become a major tourist attraction in Atlanta. It is surrounded by 800 rooms off cantilevered balconies which serve as corridors.

amount of construction that is going on. In the past year 11 new hotels have been started or announced. One of these will be 70 stories high, and when one hears that another will be part of a "multi-purpose mega-structure" to be built by an "international city corporation" one gets some idea of the spirit of dynamism that has somehow infected Atlanta. The megastructure is to be called the "Omni International" and nearby a site has been established for Atlanta's \$35m. "World Congress Centre," a trade show and convention facility par excellence. As if that were not enough to keep

Atlanta rolling, the world's first "megapolis" (offices, hotel rooms, and luxury apartments) is already going up while the Jockey Club of Miami is chipping in with a \$35m. recreation/hotel/condominium complex. The guru of the Atlantic construction boom is the very interesting architect Mr. John Portman. He is a man of 48 who, in terms of his impact on the city, is perhaps the most important architect in America today. Single-handed he gives to Atlanta architecture an importance akin to that of Chicago but in the present rather than in the past. He is a developer-architect, a combina-

tion that until he pioneered it was strictly against the ethics of the architectural profession. His Peachtree Centre is the prima donna of Atlanta's downtown development and is as coherent and as impressive as the Rockefeller Centre in New York.

Portman is currently in vogue for his hotels. They best symbolise his break with the functional sparseness of Corbusier and his return to "Oh Wow" architecture which the cathedral builders of old displayed and to which modern technology has not so far been allowed to make a contribution. Portman builds for gasps. He has aerial bridges of Perspex flying from skyscraper to skyscraper. He has tunnel entrances that lead to spaces of dizzying size. He has exterior lifts decorated with carnival lights and moving yoyo like in his great spaces.

Portman draws some of his inspiration from Venice and his architecture has something of the effect of Venice on the observer. One's curiosity is aroused. One moves from one spot to another to get a new perspective and in doing so finds a bridge, or a space or a walkway that was not noticed before. The immediate surroundings are on a human scale—unlike the vast and soul-less plazas so dear to the builders of skyscrapers—but the skyscrapers or the interior spaces rear above for anyone who chooses to look.

The pace and scale of construction in Atlanta is such that it invites the cynic to wonder if the boom is not going to bust. The city now has 14,000 hotel rooms: by 1980 it will have 11,000 more. The giant convention centre is scheduled for completion in 1976 (it has not yet been started) and it is confidently expected to draw the visitors in droves. The developers assume that the conventioners will roll into Atlanta with the same enthusiasm that they display at the moment—the echoing accommodation of Atlantic City I does not bear thinking about.

A city cannot live by visitors alone, its soul lies with its inhabitants. With this in mind of Atlanta has problems. The future greatness of Atlanta white population is fleeing to depend.

the suburbs which are part metropolitan Atlanta but part of the city itself. The Peachtree Centre thus has a dwindling tax base and lives, according to a Chamber of Commerce official, by virtue of the construction that is taking place within. There is a vital need for the city to expand its tax base to the surrounding suburban area.

New residents

It would seem to be important that this expansion of the limits is achieved now while Atlantans still understand. It is important that the next years of development be successful in bringing new residents into the complex. The developers are so eager developing. Portman is planning an impressive structure of dominions as part of the phase of the development of Peachtree Centre. The term success of the centre lies with the success of this dominion, for a city cannot long, on the strength of a and office space alone.

Over the next four years Atlanta will be governed by 35-year-old Maynard Jackson and by his number two, President of the Council, Wyche Fowler, a young W liberal lawyer of 32. This duo will be pulled one way by the business community, towards superhighways, towards the \$1,500m. rapid transit system that must link the with the suburbs, towards grand schemes that are designed to make Atlanta "the great city." They will be pulled the other way by the demands of the liberal and Black vote that elected them: to bolster social programmes, efforts to lessen discrimination against Blacks in jobs and education. They will have to fight the mysterious influence that gives Atlanta the high homicide rate in the U.S. They will have, somehow, to stop flight of the Whites to the suburbs. In the end, it will be on their success and not on the masterbuilders that Atlanta has problems. The future greatness of Atlanta white population is fleeing to depend.

Courting the tourists

By TOM BETHELL

Figures released by the Georgia Chamber of Commerce indicate that tourism is a major industry in Georgia. In 1972, for instance, spending in the state by vacation and recreation travellers totalled \$834m., a figure which is triple the amount for 1962. But this large sum is misleading in some respects, because it is conceded by the Division of Research at the University of Georgia, where these statistics are compiled, that a tourist is defined as anyone in the state who is outside his home area, whether or not he is a Georgian. In this respect, Georgia's tourist statistics do not conform to definitions used by the U.S. Department of Commerce in their surveys of tourists.

The Georgia Chamber of Commerce also reports that a total of 50m. people took vacation/recreation trips in 1971 within the state. About half of these trips were taken by residents of Georgia, a state with a population of 4.2m. people. This indicates, as an Atlanta official pointed out that the average Georgian takes six vacations a year, and thus suggests that he takes a more leisurely view of life than is actually the case.

1m. conventioners

It is worth noting, too, that conventioners are regarded as tourists for statistical purposes, and they do contribute significantly to the state's economy, although their principal reason for going to Georgia is business rather than pleasure. They do, of course, frequently bring their wives and families with them to the conventions, and spend money freely. Moreover, a good many conventioners in reality regard these outings as holidays. Most of Georgia's conventions are held in Atlanta, which hosted 522 such meetings in 1972. Half a million conventioners came to the city last year, and spent \$78m. between them. They helped keep Atlanta's 16,000 hotel rooms at an average occupancy rate of 76 per cent, which is one of the highest in the country.

There appears to be no end in sight to the booming convention business, with another 10,000 hotel rooms in Atlanta expected to be completed by 1976 to fill the rising demand. The major problem remaining to be solved for Atlanta's convention business is the lack of a large exhibit hall. This will be remedied when Georgia's



A replica of a steam train from the time of the American Civil War passes below the massive sculpture of southern rebel leaders on Stone Mountain.

World Congress Centre is built, probably around 1976. At the moment work on it has not begun. The \$35m. structure will include facilities for simultaneous translation, so that Atlanta will be able to host international conventions.

The State Tourist Division assiduously promotes tourism in Georgia, \$1.85m. of the State's budget being set aside for that purpose. Eight "Welcome Centres" are maintained, most of them at the State's borders, brochures are printed, and the State's natural assets are publicised.

An 11-year-old programme called "Stay and See Georgia," aimed at getting motorists, who are travelling through the State to stop for a while, will be seriously challenged in a few years with the completion of Interstate 95. This superhighway runs from Boston to Miami, and the incomplete sections of it in Georgia have been a boon to the tourist business, because it is much easier to stop on a slow road than when one is travelling at 70 mph. The Director of the State Tourist Division said that a survey has shown that travellers can be lured off their path, provided the detour is not longer than 50 miles.

As in many parts of America, Georgia's tourist delights frequently consist of carefully reconstructed aspects of a long bygone way of life, set amid

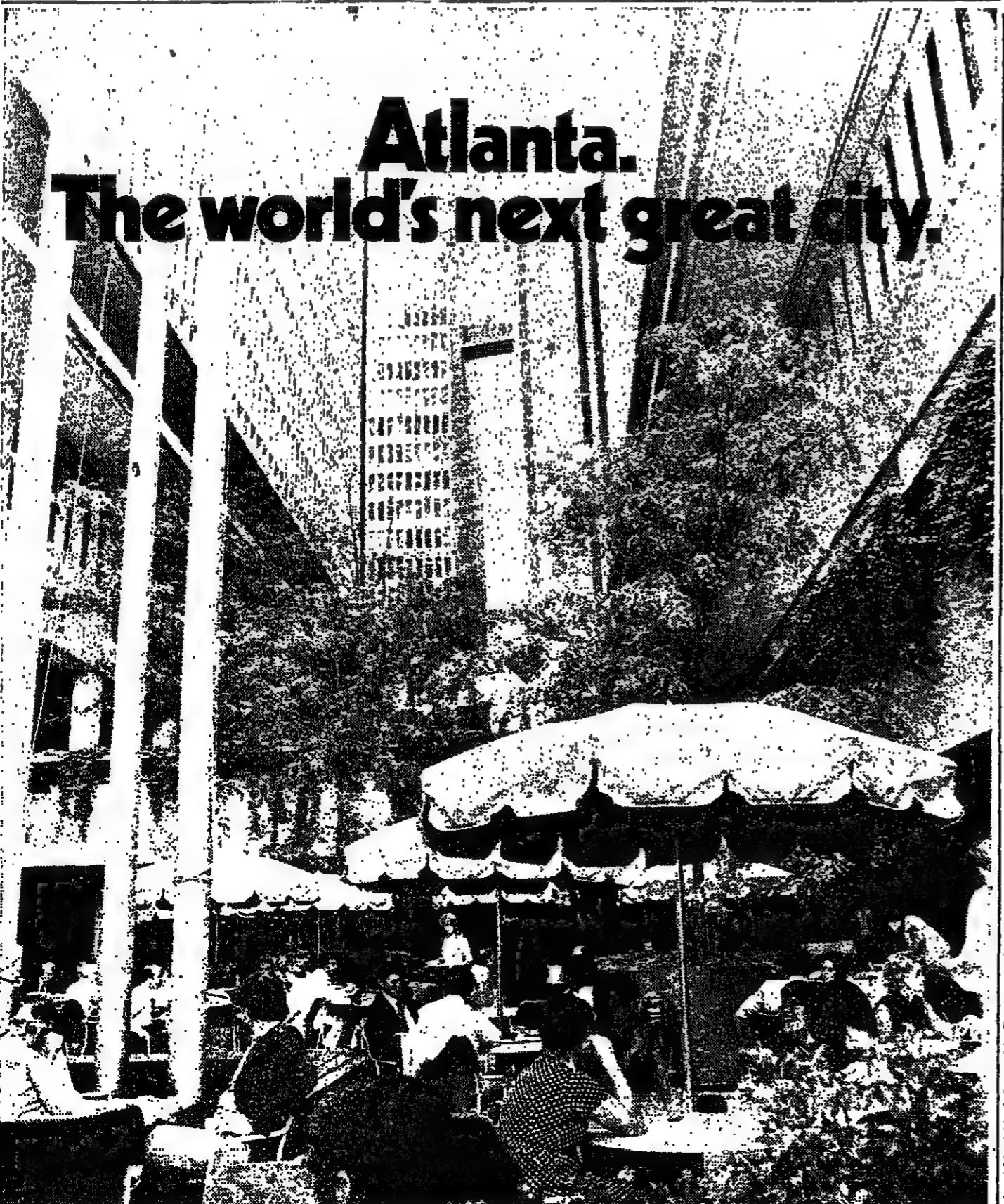
programmed "scenic trails," is surrounded by a state and so forth. Little that is authentically old seems to survive. Probably the most attractive aspect of the state for the traveller is the fact that it is principally virgin forest encompassing a huge area, larger than England, and thinly populated at that. Georgia's sandy beaches, too, are deserted by comparison with those of Florida further south, and much more appealing for that reason.

Stone mountain

Closer to Atlanta, one of the most startling objects in the region, or anywhere in the U.S., is Stone Mountain, visited by 3.6m. people last year. It is the world's largest granite monolith, rising abruptly, like a giant half submerged stone loaf of bread, 825 feet above the surrounding countryside. It is some entertainment.

Also worth seeing, while Georgia, is the port city Savannah. It includes square miles of 18th Century buildings which lay unmoored and deteriorating for years which now are being restored. Nearby are Georgia sea islands, former sites of summer homes below the Rockefeller and Morgan families.

The main tourist attraction Atlanta itself is "Underground Atlanta," an old but still part of the city, beneath ducts and culverts. It is a thing of a honky tonk to trap, but it has given Atlanta something which American cities lack—a area in the centre of where people can come in evening, have a meal and some entertainment.



Atlanta is in the vanguard of a new era of cities. Outside of major national capitals, most of the handful of cities with true international influence began as ports. The jet age has given key inland cities the same opportunity to flourish as international centers. Atlanta is uniquely positioned to become the first city in this new era to gain

worldwide importance. The gateway to a regional market of 30,000,000 people, Atlanta is importer and exporter of goods and services, architecture and culture, ideas and technology. Among its major resources are the enlightened attitudes of its leaders and the involvement of its people. Atlanta. The world's next great city.



For more about Atlanta contact Harold Carter, Atlanta Chamber of Commerce, 1305 Commerce Building, Atlanta, Georgia 30303 USA. Cable: AtlantaFax

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The outlook on the housing scene is discouraging. The down-

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November, 1973

ENGINEERING AND METAL—Cont.

HOTELS—Continued

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Lombard Closing the gap twixt "us and them"

BY C. GORDON TETHER

"WE WANT our new capitalism," said Mr Peter Walker, arguing last week that his coming company law reforms would make the British version the most "open" in the world, "to be socially responsible and accountable to public opinion at large." In this way, he declared, we could create a system that would spell the demise of the "dreadful attitudes of them and us."

The Secretary for Trade and Industry would do well to throw away his rose-tinted spectacles. Without them, he would not only realise that, when the so-called problems of success culminate in a gargantuan payments deficit and unwholesome inflation, they become—for all practical purposes—indistinguishable from the problems of failure. He would also perceive that it will need a great deal more than the most radical overhaul of company law to banish "them and us" antagonisms of the kind that have been allowed to develop.

When Mr Laurence Daly, the miners' leader, was asked to justify his union's latest wage claim on T. recently, he immediately referred to the £20,000 increase in salary Princess Anne will be receiving from the Civil List as a sequel to her marriage. The two cases might seem to be so remote from one another, judged by conventional standards, as to be totally unconnected. But that does not alter the fact that Mr Daly and, no doubt, many of the men he leads do not see it this way.

Torpedoed

The incident can, indeed, be seen as emphasising the biggest obstacle to the creation of the sense of national unity that would be such a big help to us now—the widespread feeling among the "rank and file" that things are being run on lines that tip the scales very much in favour of "them" as opposed to "us."

The 1964 Labour Government effectively torpedoed its hopes of developing a price and incomes policy: capable of containing the emergent wages explosion menace when it decided, shortly after coming to power, to vary nearly double the salaries of Ministers and MPs.

This did not stop the present Government making the same mistake when it came to power in 1970. Moreover, although its mandate expressly committed it to undertake a unifying mission, the effect of much of what it has done or omitted to do—and its sins of omission are in some ways more serious than those it has committed—has been to intensify the "dreadful attitudes of them and us."

The media talk continually of the Tories having become more socialist than the Socialists as the result of embracing "consensus politics." Not surprisingly, this is not always how it strikes ordinary people. They are more apt to be impressed by other things, such as the fact that the Tories have been magnified out of all recognition and immense capital gains enjoyed by property owners while, on the other, the ordinary saver has seen a quarter of his money disappear down the inflationary drain in three years and the cost of houses and the money needed to finance them has soared to undreamed of heights.

Grass roots

Dissidents have, of course, exploited the poisonous atmosphere which inflation has created. But how easy the Government has made it for them to do so by "talking to the wages-price spiral until the eleventh hour." Nor can one overlook the gap that has been created between rulers and ruled through the disregard for "accountability to the public at large" that the Government displayed, this time in collaboration with Parliament, in relation to the Common Market law. Is it surprising, asked Mr Robin Page in a recent article in the Daily Telegraph, that the grass is willing at the electoral roots "when all that is objectionable in our political system has been unashamedly displayed in the EEC debate?"

Eliminating the hateful "them and us" attitudes that now afflict the country will, in short call for much more than vanishing the dirty face of capitalism and preventing considerable excesses being practised in the public's expense by irresponsible use of trade union power.

What is more, unless the other uses of this alienation get their share of attention, there is a real danger that the country will come all but unrecognisable before the brave new capitalism that is being cooked up in Mr Walker's laboratory can see the light of day.

THE LEX COLUMN

Incident on Throgmorton Street

The scene is Throgmorton Street, late last night. A group of characters, some more ethereal than others, are reading a selection of brokers' reports and the week-end Press.

Mr. W. P. Hamilton: There are plenty of wise saws and modern instances to show that the investor seldom buys at the bottom and rarely or never sells at the top. Cheap stocks are never attractive. This is no Chestertonian paradox but a matter of market record. If cheap stocks were attractive there would be an active market to-day, with an interested and even excited public. The further inference is obvious, that stocks would not be cheap for long. It is easy to tell the man who can pay for his stock and forget about it that the market is full of attractive possibilities. There are not enough such customers to go around. (nervously) But may not there be something rather special about the market at the moment? After all, the average fund manager talks about nothing but his liquidity.

Mr. W. P. H.: He may be able

to pay for the stocks, but he cannot forget about it; he thinks he must read the price list every morning. Your customer sees Steel common down five points a share. He forgets all that you told him about book value. He says he will take his loss and remember the lesson. He is entirely mistaken about the lesson, and what he is forgetting is not his loss but the reason why he bought the stock.

Lex: So what now? You've suggested, I think, that the average bear market lasts about 17 months.

Mr. W. P. H. (Aloofly): No knowledge of the stock market barometer will enable any of us to call the absolute turn from a bear market to a bull market.

Mr. E. Lefevre: Wait until you see—or if you prefer, until you think you see—the turn of the market; the beginning of a reversal of general conditions. You have to use your brains and your vision to do this; otherwise my advice would be as idiotic as to tell you to buy cheap and sell dear. One of the most helpful things that anybody can learn is to give up trying to

catch the last eighth—or the first. These two are the most expensive eighths in the world. They have cost stock traders, in the aggregate, enough millions of dollars to build a concrete highway across the continent.

Mr. W.P.H.: The conditions which make for a big upward or a big downward movement of the primary class practically never change overnight. (a roll of drums)

Mr. Charles H. Dow: When the business tide is nearly in or nearly out, there is a period when it is impossible to say definitely that conditions have changed in a large way either for better or for worse. Some conditions may have changed and others not, with the balance doubtful.

This makes a corresponding situation in the stock market. Prices go off on that which is unfavourable and recover again on that which is favourable. The net change during such a time may be quite small, even if the market is fairly active and the gross changes are quite large.

Lex: But times have changed since your day; everything is

much more volatile. Whoever heard of a market peaking out at the start of an enormous acceleration in profits?

Mr. W.P.H.: The market discounts everything but the completely unexpected. It does not profess to be able to foresee the San Francisco earthquake, or an incident like the Northern Pacific corner, and opinions differ as to whether the Great War was foreseen (and to some extent discounted) in the long bear market before its actual outbreak.

Enter a Learned Man: The stock market has predicted eight of the last three recessions. (Exits, chuckling.)

Mr. E.L. (ignoring everyone): People don't seem to grasp easily the fundamentals of stock trading. I have often said that to buy on a rising market is the most comfortable way of buying stocks. Now, the point is not so much to buy as cheap as possible or go short at top prices, but to buy or sell at the right time. When I am bearish and I sell a stock, each sale must be at a lower level than the previous sale. When I am buying, the

reverse is true. I must buy on a rising scale. I don't buy long stock on a scale down. I buy on a scale up.

Enter a Dealer, painted all in tongues: A crisis budget has been averted only by the arrest of the entire Cabinet. In addition, the Martians have invaded Earth.

Mr. W.P.H. (shaking his head): The stock market is not logical in its movements from day to day. The test is not at the bottom but in what the market does after a rally in a condition like the present where stocks could easily be sold out or oversold. Sentiment is always superabundant at the bottom, and professionals begin to "copper" (that is, to bet against) public sentiment when the elevator boy talks of his "short position."

Mr. C.H.D.: The great lesson taught by panics is always that, in times of great anxiety and fear, values are disregarded and the best stocks go off as much or more than the worst.

After the break came, the obvious thing was for a buyer with available money or credit to seize the good stocks which were being slaughtered.

There is only one unchanging rule in speculation. That is the certainty that values determine prices in the long run and that the fundamental effort on the part of everyone who tries to make markets is to foresee values and to make money by adjusting prices thereto.

The Dealer: I have just heard that the Martians are buying selected high-grade Common Stocks—they like Vickers and Dunlop.

Mr. E.L.: Obviously the thing to do was to be bullish in a bull market and bearish in a bear market. Sounds silly, doesn't it?

Dramatis personae
The thoughts of Mr. W.P.H. and Mr. C.H.D. are direct quotations mostly from the *Wall Street Journal* between 1901 and 1929; those of Mr. E.L. came from "Reminiscences of a Stock Operator." The Learned Man was played, I think, by Professor Paul Samuelson. Lex played himself, and the Dealer prefers to remain anonymous.

Ministers face testing censure motion to-day

BY JOHN BOURNE, LOBBY EDITOR

MR. EDWARD HEATH and Mr. Anthony Barber, Chancellor of the Exchequer, this afternoon face one of the Government's most testing occasions in Parliament since it won the General Election.

Although Commons business managers have little doubt that the Labour Opposition's censure motion on the Government for its handling of the economy will be defeated to-night, Ministers admitted yesterday that the "feeling" of the debate, and particularly the impression made by Mr. Heath and Mr. Barber in their speeches, will be of great importance.

Formidable task

Each of them has a formidable task: to convince the Government's supporters in the Commons and the country that the Cabinet is determined to pursue its policy of "sustained economic growth," while at the same time is able to curb the rate of inflation.

Following the Government's setbacks last week, starting with Tuesday's very bad trade figures and the introduction of measures to restrict credit, and ending with the news that the food price index had risen by 18.7 per cent in the past year and seasonal foods were up by 36.4 per cent, it is clear that Mr. Harold Wilson and Mr. Dennis Healey will try to make this afternoon a field-day for Labour.

Engineering companies advised against 'threshold' pay deals

BY JOHN ELLIOTT, LABOUR EDITOR

ENGINEERING COMPANIES have been advised by the Engineering Employers' Federation to reject claims for threshold-style cost-of-living pay agreements as part of the EEF advance strategy for its major pay negotiations affecting some 500,000 manual workers.

The EEF is about to finalise its opening offer in these negotiations. This seems likely to concentrate on raising minimum national pay rates and perhaps improving holiday arrangements. But it will reject a union demand for a 35-hour working week.

On Wednesday, the EEF management Board will decide its policy and will then probably arrange to meet the unions before March 30 next when direct talks by Mr. Hugh Scanlon, president of the Amalgamated Union of Engineering Workers, early next month to answer a

£800m. a year claim lodged by the unions last September. The advice that threshold pay deals, which have been especially written into the Government's Stage Three Pay Code as a compensation for high price rises, should not be awarded in local or factory negotiations has been issued by the EEF to its 5,200 member companies.

This is because the EEF would prefer to maintain national control, now and in the future, of this type of pay rise for a working week reduced from 40 to 35 hours. The claim also includes longer and better paid holidays, together with progress on equal pay for women.

The problem for the negotiations is how much of Stage Three's 7 per cent basic increase should be used in these negotiations and how much should be left for local deals.

Several engineering union leaders feel their justification for assistance is diminished by pay rises outside their control. It seems likely, however, that since thresholds are one of the extras provided in the Pay Code they will be included in any deal reached for the engineering industry.

The national manual workers' claim lodged by the engineering unions is for an increase in minimum pay rates, with the lowest rising from £20 to £25 for a working week reduced from 40 to 35 hours. The claim also includes longer and better paid holidays, together with progress on equal pay for women.

The problem for the negotiations is how much of Stage Three's 7 per cent basic increase should be used in these negotiations and how much should be left for local deals.

Major bid for Ulster settlement

BY DOMINICK J. COYLE

THE FIRST concerted moves in almost 50 years towards harmonising relations between the two parts of Ireland are expected to get under way later this week as part of an overall political settlement in Ulster.

Talks in Belfast to-morrow will involve both Mr. William Whitelaw, the Northern Ireland Secretary, and Lord Carrington, the Defence Secretary.

Such moves towards a genuine North/South rapprochement will, in the view of senior Ministers in Dublin, result in the formation of a Council of All Ireland before March 30 next when direct British rule in the North is due to end on the basis of existing Westminster legislation.

The proposed council, linking the Dublin Government with a new Northern Executive in Belfast, is likely to stem from a major initiative Dublin Belfast-London conference to be held in Britain within the next two months, and quite possibly before Christmas.

land, will include the question of concerted North-South action against terrorism, and the measure of formal recognition which the Dublin Government is prepared to grant to new political institutions in Belfast.

The Government here believes that the essential precondition for calling such a conference, as laid down by Mr. Edward Heath, the British Prime Minister, in his talks here last September, is about to be met this week in Belfast—an agreement between the pledged Unionist, the Alliance Party and the Social Democratic and Labour Party on the formation of a Northern Executive.

Both Mr Whitelaw and Lord Carrington will be seeing the Northern political parties in Belfast within the next 48 hours and the expectation here is that these meetings will in fact finally launch the troubled province towards the kind of political settlement envisaged in the British White Paper last March.

Both Ministers and security chiefs in the South anticipate that concrete moves towards a political solution in Ulster are almost certain to be accompanied

by an escalation of terrorist violence by the Provisional IRA and by Protestant extremist groups.

Dublin proposals at the proposed tri-partite conference will include a formula for overcoming existing political difficulties regarding extradition as between the two parts of Ireland. This will form part of a much wider package for a common law enforcement area spanning the border.

It is acknowledged publicly, by both the Government here and the SDLP in the North, that last-minute hitches this week in talks in Belfast could seriously upset the present mood of official optimism, not least the possibility of Mr. Brian Faulkner, the former Ulster Premier, failing to carry support for power-sharing arrangements at Tuesday's meeting of the full Unionist Party Council.

Mr. Faulkner has warned that he will resign as Unionist leader if he is defeated on the issue.

Security chiefs believe the UVF is the main Protestant terrorist organisation. It was founded in 1968 by Mr. William Craig, then Minister for Home Affairs.

Latest poll puts Nixon support at 27%

By Adrian Dick

WASHINGTON, Nov. 18. PRESIDENT NIXON's busy, if belated, counter-offensive against his Watergate critics continued over the week-end without any positive sign that it has done him much good so far.

The latest Gallup poll, published to-day, shows some 27 per cent of Americans think Mr. Nixon is doing a good job, against 63 per cent, who do not.

These figures are not actually worse than the previous Gallup poll finding, but they do suggest that Mr. Nixon's efforts to re-establish public confidence will be steadily uphill for a long time to come.

His appearance before a conference of newspaper and news agency editors in Orlando, Florida, on Saturday night was mostly a repeat of the same performance the President has been putting on for Republican members of Congress over the past week.

The questions were unwhipped and ranged over the whole field of allegations and suspicions that have been hurled at Mr. Nixon and his Administration.

The President insisted on his innocence and, while acknowledging his responsibility in general terms, asserted the evidence would bear him out. Yet he did not give any real explanation of why some of it cannot be produced.

Conference

There will be two further opportunities to make the same case before Mr. Nixon returns to Washington—a political meeting at Macon, Georgia, to-day and a press conference of Republican State Governors at Memphis, Tennessee, on Tuesday.

These essentially sympathetic occasions, like the President's speech to a house agents' convention here last week, should serve to reinforce the chosen counter-offensive strategy of repeating that he is not guilty of the sins he has been accused of, until he begins to be believed.

From the reactions of the assembled newspaper executives last night, the Republican Senators and Congressmen last week, and the public, however, it is a strategy that has so far only confirmed the previous opinions both of those who believe in Mr. Nixon and those who do not.

The President also looks vulnerable from his Administration's handling of the energy shortage.

He said he had "seen this thing coming" and criticised Congress for not acting sooner on a package of energy measures it had been sent earlier this year.

Power men vote to continue their dispute

BY JOHN WYLES, LABOUR REPORTER

THE PROSPECT of the electricity power engineers' dispute continuing for some time increased at the Electrical Power Engineers' Association voted 64 to 1 in favour of maintaining their ban on stand-by duties.

This decision was taken on the eve of crucial moves which start to-day in both the power and the miners' disputes. Miners' leaders are meeting the National Coal Board for further talks on possible improvements to the NCB £44m. pay offer.

The massive majority on the EPEA national executive council for continuing the engineers' ban over the past two weeks has threatened to disrupt electricity supplies came in advance of the union's meeting with the Electricity Council chiefs to-morrow.

The EPEA is still demanding that the Government make it a special case under the Pay Code to allow increases of up to £7.50 for the union's 18,000 members involved in stand-by duties.

It is prepared to discuss a joint approach with the Electricity Council to the Pay Board for special treatment under the Board's report on wage relativities due out towards the end of next month. However, this approach by itself would be unlikely to end the engineers' action because of the time-lag and the lack of certainty that the Government will allow such special case payments during Stage Three.

Leaders of more than a million workers have already lodged cases with the Board arguing for similar special payments above the Stage Three limits.

The EPEA and the Electricity Council are also expected to discuss making a claim to the Pay Board for special payments under the Stage Three anomaly provisions based on the argument that engineers' pay rises were traditionally linked with electricity.

Continued from Page 1

Pressure on oil

of 15 per cent, or more, at a stretch.

The electricity generating industry, which consumes over 15 per cent of the total oil supplies, is being put in a more delicate position because of industrial action among coal miners and the electricity engineers.

Should these disputes be solved, it could probably manage to reduce oil consumption by substantial amounts.

The problem of petrol rationing is more complex. Full coupon rationing takes time to implement, and is both administratively and politically awkward.

While the latest Arab move would seem to ease the pressure for this severe step, the petrol position in the U.K. is made worse by the fact that this is normally a time when petrol stocks are built up in preparation for the winter. If stocks are further drawn down in the U.K., the country could face a continuation of a petrol shortage right throughout the summer.

The alternative of simply cutting deliveries to the petrol stations would require some discipline on the part of consumers, as well as backing in the form of limitations in volume sales, and possible bans on week-end motoring.

One hopeful sign in the latest Arab move is the evidence it provides that the Arab producers (outside Saudi Arabia) are beginning to draw back from a course of economic confrontation with Europe.

However, by concentrating the latest production cuts almost exclusively on Japan (the U.S. is already fully embargoed) the decision could also be shrewdly aimed at further dividing the consumers.

Weather

U.K. TO-DAY

SUNNY SPELLS and scathe showers. Snow in Scotland and hills elsewhere generally cold.

London, S.E. England, E. & W. Rain at first, then brighter. Wind W. to moderate or fresh. Max. 48F. (48F).

Cent. S. and S.W. England Channel Is. S. Wales Sunny spells, isolated show Wind N.W. moderate. Max. 50F. (50F).

Midlands, E. N.W. Cent. N.E. England, N. Wales, L. E. of Man, N. Ireland Sunny intervals, south showers. Wind N.W. fresh strong. Max. 7C (45F).

Borders, Edinburgh, E. S.W. N.W. Scotland, Aberdeen, Glasgow, Cent. Highlands, Moray Firth, Argyll Sunny intervals, eq showers. Wind N.W. strong gale. Max. 6C (43F).

Caitness, Orkney, Shetland Squally showers, intervals. Wind N.W. gale. 4C (39F).

Outlook: Cold, occasional Lightning: London Manchester 18.37, Glasgow Belfast 18.47

BUSINESS CENTRES

City	Time	Index
Amsterdam	9.45	100.00
Bombay	10.15	100.00
Calcutta	10.15	100.00
Canton	10.15	100.00
Cebu	10.15	100.00
Hankow	10.15	100.00
Harbin	10.15	100.00
Hong Kong	10.15	100.00
Kobe	10.15	100.00
London	10.15	100.00
Lyons	10.15	100.00
Manila	10.15	100.00
Medan	10.15	100.00
Shanghai	10.15	100.00
Singapore	10.15	100.00
Tientsin	10.15	100.00
Yokohama	10.15	100.00

HOLIDAY RESORTS

City	Time	Index
Amsterdam	9.45	100.00
Bombay	10.15	100.00
Calcutta	10.15	100.00
Canton	10.15	100.00
Cebu	10.15	100.00
Hankow	10.15	100.00
Harbin	10.15	100.00
Hong Kong	10.15	100.00
Kobe	10.15	100.00
London	10.15	100.00
Lyons	10.15	100.00
Manila	10.15	100.00
Medan	10.15	100.00
Shanghai	10.15	100.00
Singapore	10.15	100.00
Tientsin	10.15	100.00
Yokohama	10.15	100.00

BARCLAYS IN 11% INTEREST MOVE

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